



January 27, 2015

U.S. EPA, Region 9  
ATTN: ENF4-1, NPDES/DMR  
75 Hawthorne Street  
San Francisco, CA 94105

**Re: Discharge Monitoring Report – Fourth Quarter 2014 Platforms Ellen, Elly, and Eureka  
NPDES Permit CAG280000**

Dear DMR Recipient:

This letter and its attachments include Discharge Monitoring Reports (DMRs) for the reporting period of October, November, and December 2014 for Beta Offshore Platforms Ellen, Elly and Eureka.

All produced fluids from Platform Eureka are piped to Platform Elly for processing. Platforms Elly and Ellen are two separate platforms attached by a bridge, thus they have the same latitude and longitude listed in their DMRs. We have submitted separate DMRs for each of the three platforms since there are separate NPDES discharges associated with each platform. Oil production wells are located at Platforms Ellen and Eureka. Platform Elly serves as a processing facility and contains most of the production treatment processes. This is the only platform that may occasionally discharge produced water. There are no drilling related activities or wells on Platform Elly. Production fluids generated at Ellen and Eureka are sent to Elly for further processing and back to Ellen for injection.

Attachment 1: EPA DMR forms (3320-1) for Eureka, Elly and Ellen which were supplied by EPA on January 6, 2015.

Attachment 2: Listings of the chemical inventory for miscellaneous discharges (specifically non-contact cooling water) for each platform.

Attachment 3: Provides pre-dilution and post dilution chlorine results for non-contact cooling water discharges in accordance with Appendix C of the permit for each platform.

Attachment 4: Summarizes discharges that are prohibited.

Attachment 5: Includes copies of the official state certified lab reports and laboratory quality control reports and other permit required information (EPA Methods, sample dates, etc.) for each Platform.

Attachment 6: For Platform Ellen, chemical inventory for the drilling mud and Well treatment, completion fluids for Well A-23.

Attachment 7: For Platform Ellen, the metals analysis of the barite used during drilling activities on Well A-23.

## Discharge Overview

### Drilling Muds and Cuttings (001):

On Platform Ellen drilling activities took place with Well A-23 with a spud date of October 6, 2014 and the well was completed on November 16, 2014. As required in the permit, the results of the drilling monitoring activities are included within the DMR reporting period occurring at least 45 days after the completion of the well.

A drilling mud bioassay was taken during the 0-80% well footage. The results are in compliance and are included in the DMR. Chemical inventory is also included for the mud type used. (see Attachment 6). There were no drilling mud discharges. Drill cuttings discharges occurred in October during the 0-80% well footage. There were no discharges during the 80-100% well footage.

Drilling activities also took place during the month of December with Well A-33. There were no associated discharges and the results of the drilling monitoring activities will be included within the DMR reporting period occurring at least 45 days after the completion of the well.

### Produced Water (002):

Produced water dilution – Platform Elly: On rare occasions when produced water is discharged, often times the discharge may only occur for a few hours or less. In calculating the dilution for each quarter, we use the average produced water daily rate based on the actual barrels of water per day “rate”. As an example, if 100 barrels were discharged in one hour, the actual rate would extrapolate to a 2400 barrels of water per day (BWD) “rate”, instead of only 100 BWD. This better represents the flow velocity used in the EPA Plume dilution calculation. A dilution of 1318:1 was calculated for the quarter.

There were two days of produced water discharge during the month of November and one day during the month of December. Weekly Oil & Grease results are included in the DMR as end of pipe values.

Although there were no discharges on December 15, 2014 we collected representative samples for the quarterly 3-species toxicity screening; including Red Abalone, Top Smelt and Giant Kelp chronic toxicity testing (refer to Attachment 5). The Red Abalone that the laboratory secured for the test failed to spawn. Therefore, there are no chronic Red Abalone test results. During the next DMR period, or as soon as the abalone begin spawning again, two samples will be taken.

### Well Treatment Completion and Workover Fluids (003):

WTCWF generated from Platform Ellen or Eureka would be commingled with the produced water at Platform Elly/Ellen. There was one well treatment, completion and workover fluid type job performed during this quarter at Platform Ellen. There was no discharge of fluids. A chemical inventory is available on request.

### Deck Drains (004):

Platform Ellen’s deck drains are commingled with production and sent to Platform Elly. Platform Elly’s deck drain volumes are commingled with production at Elly and injected with produced water at Ellen (refer to produced water monitoring requirements in the DMR if discharged). Deck drains on Platform Eureka are sent to a disposal well on Eureka and not discharged.

Sanitary and Domestic Waste (005):

Platforms Ellen and Eureka both operate a United States Coast Guard approved Marine Sanitation Device (MSD). Although these devices are capable of treating both sanitary and domestic waste, some of the domestic waste (as laundry water) is not discharged. At Platform Ellen, these domestic volumes are commingled with production and sent to Platform Elly/Ellen for injection with produced water. The sanitary waste commingles with sinks and shower water and is properly treated and chlorinated through the MSD discharged at Platform Ellen.

Platform Eureka also has sanitary and domestic waste water discharges (refer to the DMR). Domestic waste water (as laundry water) is sent to a disposal well and not discharged at Eureka. Sanitary wastes are treated through a USCG-approved MSD and discharged at Eureka. There are no sanitary/domestic waste discharges at Platform Elly.

Fire water (008):

Fire water at Platforms Ellen and Elly are commingled with deck drains and injected with produced water at Platform Ellen. The fire water and deck drain volumes at Platform Eureka are sent to a disposal well and are not discharged. The fire water was reported as not being chlorinated at all three platforms.

Non-contact Cooling Water (009) - Combined with Excess Sea Water:

Non-contact cooling water (as sea water) may be discharged at all three platforms. Separate discharges occur through separate outfalls for each of the three platforms. Seawater pumps deliver water throughout the platforms for use as non-contact cooling water, marine sanitation device feed water and for sanitary usage supply. Any excess seawater not used for these sources has been previously reported under uncontaminated water in the DMRs under a separate discharge (016). When the non-contact cooling water is discharged it can be combined with the excess seawater discharges at Eureka and Ellen. Since the platforms add low dosages of chlorine treatment to this part of the system, chlorine monitoring has been performed on the chlorinated discharges and if applicable, includes excess seawater in addition to the non-contact cooling water. Thus, the DMR reports the total water discharged for both sources (non-contact cooling water and excess seawater). Both volumes and chlorine results for the combined discharges are listed in the DMR under non-contact cooling water for Eureka and Ellen. Elly has only non-contact cooling water. Any separate uncontaminated discharges that occur, will continue to be reported independently under discharge (016) in the DMR.

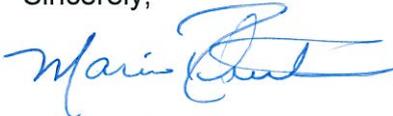
The chemical inventory for non-contact cooling water (Attachment 2) was based on Operations' daily estimates using a Hach color wheel chlorine test kit.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. & 1001 and 33 U.S.C. & 1319. (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 months and 5 years)

4<sup>th</sup> Quarter 2014 DMR  
January 27, 2015  
Page 4 of 4

Should you have any questions or require any additional information, please contact me at (562) 628-1526.

Sincerely,



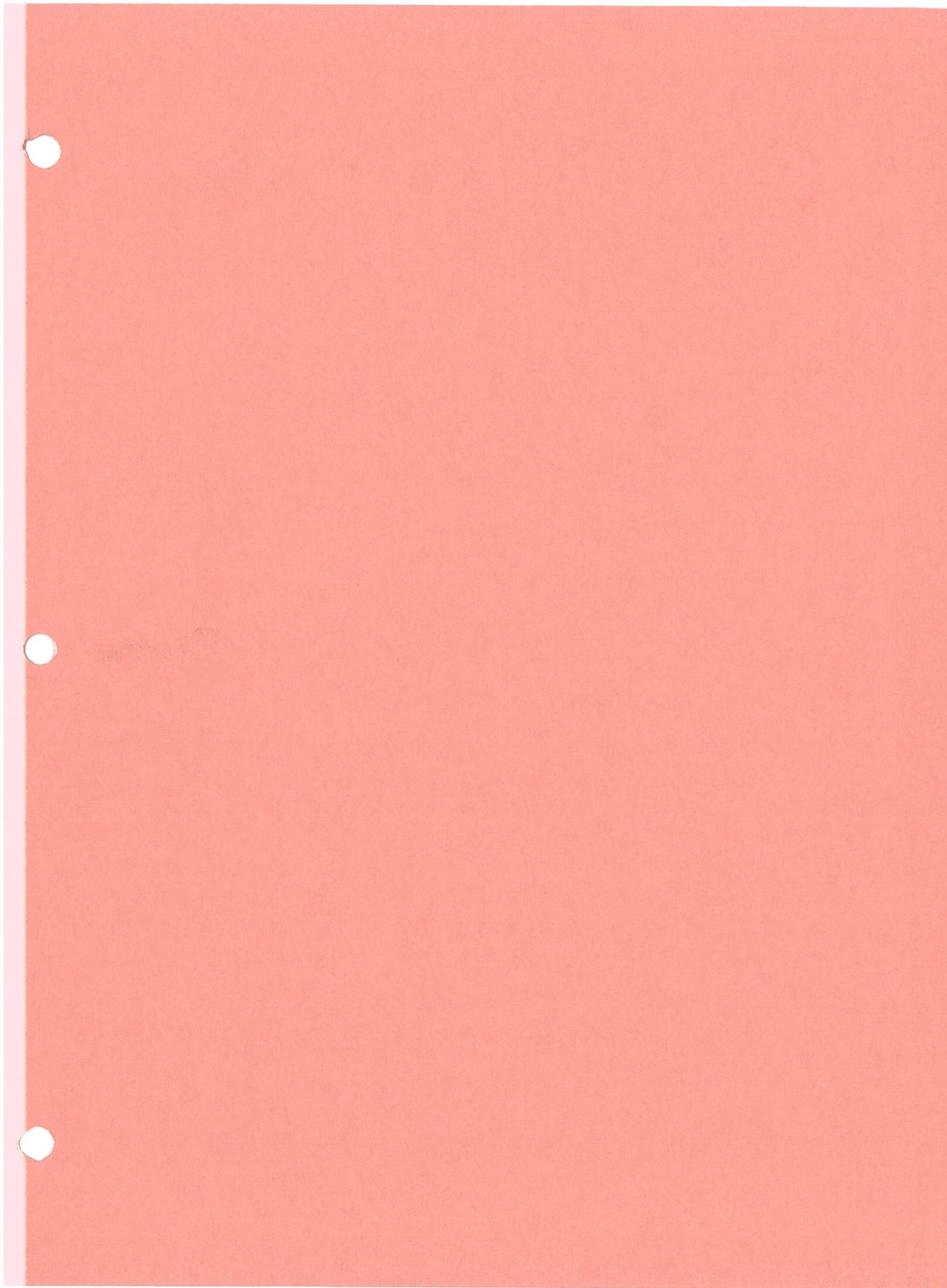
Marina Robertson  
HSE Manager

cc (via email):

Regional Supervisor  
Bureau of Safety and Environmental  
Enforcement (BSEE)  
760 Paseo Camarillo  
Camarillo, CA 93010

Ms. Alison Dettmer  
Energy and Ocean Resources Unit  
California Coastal Commission  
45 Fremont, Suite 2000  
San Francisco, CA 94105-2219

Regional Supervisor  
Office of Environment  
Bureau of Ocean Energy Management (BOEM)  
760 Paseo Camarillo, Camarillo, Ca 93010  
Attn: Chief, Environmental Analysis Section



Platform Ellen

Attachment 1

EPA DMR  
PERMIT NO. CAG280000

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
OK 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME: BETA OFFSHORE PLATFORM ELLEN - CAG280000  
ADDRESS: 111 West Ocean Blvd., Suite 1240  
LONG BEACH, CA 90802  
FACILITY: PLATFORM ELLEN  
LOCATION: LAT 33 34 56.52N LO 118 07 41.6W  
PACIFIC OCEAN, CA 90802

ATTN: Marina Robertson

CAF001147	001A-A
PERMIT NUMBER	DISCHARGE NUMBER
MM/DD/YYYY	MM/DD/YYYY
10/01/2014	10/31/2014

DMR Mailing ZIP CODE: 90802  
MINOR (SUBR FW)  
Drilling Fluids and Cuttings  
External Outfall

No Discharge

PARAMETER	QUANTITY OR LOADING		QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	VALUE	UNITS	VALUE	VALUE	UNITS			
Oil based fluids, non-aqueous based drilling fluids and cuttings	NODI (C)	NODI (C)	*****	*****	*****			
51707 1 0 Effluent Gross	Req. Mon. VALUE	Y=1,N=0	*****	*****	*****		End Of Well	GRAB
Cadmium [Cd], in barite, dry weight	*****	*****	*****	*****	*****	0	Once per batch	Grab
78244 1 0 Effluent Gross	*****	*****	*****	*****	*****		Once per Batch	GRAB
Mercury [Hg], in barite, dry weight	*****	*****	*****	*****	*****	0	Once per batch	Grab
78245 1 0 Effluent Gross	*****	*****	*****	*****	*****		Once per Batch	GRAB
Drilling fluids, free oil	*****	*****	*****	*****	*****		Once per Batch	GRAB
82589 1 0 Effluent Gross	*****	*****	*****	*****	*****		Daily when Discharging	GRAB
Drilling fluids, volume	*****	NODI (C)	*****	*****	*****		Daily	Estima
82594 1 0 Effluent Gross	*****	Req. Mon. DAILY MX	*****	*****	*****		Daily	ESTIMA
Drilling fluids, volume	*****	270	*****	*****	*****	0	Annual	Calctd
82594 EG 0 Effluent Gross	*****	49950 YTD TOT	*****	*****	*****		Annual	CALCTD
Drill cuttings, free oil	*****	0	*****	*****	*****	0	Daily	Grab
82595 1 0 Effluent Gross	*****	Req. Mon. MO TOTAL	*****	*****	*****		Daily	GRAB

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	TELEPHONE	DATE
Jim Guion	(562) 628 1526	01 22 2015
Executive Vice President, Chief Operating Officer	AREA Code	NUMBER
TYPED OR PRINTED		MM/DD/YYYY

Signature: Marina Robertson, HSE Manager  
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

- Drilling fluid and cutting, free oil refers to free oil static sheen test.
- Drilling fluids & Drill Cuttings annual cumulative volume from Mar 1st thru Feb 28th each year.
- Drill fluid inventory refer to Attachment 6. Barite analysis refer to Attachment 7.
- The total annual cumulative volume limit is a combined limit of drilling fluid volumes from both Platforms Ellen and Ely, as listed in the permit.
- Well A-23 drilling activities began October 6 and completed on November 16, 2014.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG2800000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

CAF001147	001A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
MM/DD/YYYY	MM/DD/YYYY
10/01/2014	10/31/2014
<b>MONITORING PERIOD</b>	

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Drilling Fluids and Cuttings  
 External Outfall

No Discharge

PARAMETER	QUANTITY OR LOADING		QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	VALUE	UNITS	VALUE	VALUE	UNITS			
Drilling cuttings, volume	*****	320	*****	*****	*****	0	Daily	Estima
82596 1 0 Effluent Gross	*****	Req. Mon. DAILY MIX	*****	*****	*****		Daily	ESTIMA
Drilling cuttings, volume	*****	320	*****	*****	*****	0	Annual	Calctd
82596 EG 0 Effluent Gross	*****	18150 YTD TOT	*****	*****	*****		Annual	CALCTD
LC-50 Static 96Hr Acute Mysid. Bahi	*****	*****	> 10	*****	*****	0	Contingent	Grab
TAB3E 1 0 Effluent Gross	*****	*****	3 MINIMUM	*****	*****		Contingent	GRAB
	*****	*****	*****	*****	*****			
	*****	*****	*****	*****	*****			
	*****	*****	*****	*****	*****			
	*****	*****	*****	*****	*****			

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) who provided the information submitted, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.		<b>TELEPHONE</b>	<b>DATE</b>
Jim Guion Executive Vice President, Chief Operating Officer	 Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		(562) 628 1526	01 22 2015
TYPED OR PRINTED			AREA Code	NUMBER

**COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)**

1. Drilling fluid and cutting, free oil refers to free oil static sheen test.
2. Drilling fluids & Drill Cuttings annual cumulative volume from Mar 1st thru Feb 28th each year.
3. Drill fluid inventory refer to Attachment 6. Barite analysis refer to Attachment 7.
4. The total annual cumulative volume limit is a combined limit of drilling fluid volumes from both Platforms Eilen and Ely, as listed in the permit.
5. Well A-23 drilling activities began October 6 and completed on November 16, 2014.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
OK 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Produced Water Monthly  
 External Outfall

CAF001147	002A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
10/01/2014	10/31/2014

No Discharge **A**

PARAMETER	QUANTITY OR LOADING		QUALITY OR CONCENTRATION		NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	VALUE	UNITS	VALUE	UNITS			
Oil and grease, hexane extr method	*****	*****	*****	*****			
00552 1 0 Effluent Gross	*****	*****	29 MO AVG	*****		Weekly	GRAB
Produced water, flow	*****	*****	*****	*****			
82600 1 0 Effluent Gross	Req. Mon. MO AVG	*****	*****	*****		Daily	ESTIMA

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information so that the discharge monitoring report is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	<b>TELEPHONE</b>	<b>DATE</b>
Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED		(562) 628 1526 AREA Code NUMBER	01 22 2015 MM/DD/YYYY
		 Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	

**COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)**  
 1. Eily-only platform capable of discharging PW. All produced water is sent to Eily for processing (refer to Pit Eily DMR)  
 2. PW annual cumulative flow from Mar 1st thru Feb 28th each year  
 3. If PW is discharged, 12 mo of monitoring is required for RP analysis.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
OK 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Well Treatment, Completion and Workover Fluid External Outfall

No Discharge **A**

CAF001147 PERMIT NUMBER	003A-A DISCHARGE NUMBER
MM/DD/YYYY 10/01/2014	MM/DD/YYYY 10/31/2014

ATTN: Marina Robertson

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Well fluids, oil & grease	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
04379 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	29 MO AVG	42 DAILY MX	mg/L		Once per Occurrence	GRAB	
Number of Events	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
51484 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Once per Occurrence	CALCTD	
Well fluids, free oil	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
82603 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Once per Discharge	GRAB	
Well fluids, volume	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
82604 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Once per Occurrence	ESTIMA	

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED	 Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE (562) 628 1526 AREA Code NUMBER	DATE 01 22 2015 MM/DD/YYYY
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COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

1. Type and # of Job: Completion, workover, treatment or combination.
  2. Free Oil Static Sheen Test.
  3. Chemical Inventory, refer to Attachment referenced when applicable
4. When present, all WTCWF are commingled with production and sent to Platform Ely (refer to Plat Ely DMR).

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Deck Drainage  
 External Outfall

No Discharge  A

CAF001147 PERMIT NUMBER	004A-A DISCHARGE NUMBER
MM/DD/YYYY 10/01/2014	MM/DD/YYYY 10/31/2014

ATTN: Marina Robertson

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING		QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	UNITS			
Flow rate, deck drainage	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****			
51666 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. MO AVG	*****	*****	*****	*****		Monthly	ESTIMA
Free Oil Visual Sheen	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****			
51689 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Daily	VISUAL

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED	I certify, under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage and collect the information, or those persons directly responsible for gathering and evaluating the information, the information submitted is true, accurate, complete, and correct to the best of my knowledge and belief, and I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	TELEPHONE (562) 628 1526 AREA Code NUMBER	DATE 01 22 2015

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

1. Free Oil Sheen - # days observed
2. Deck Drainage is commingled with Produced Water and treated at Platform Elly (refer to Plat Elly DMR)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
 DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAGZ800000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802

**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802

ATTN: Marina Robertson

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Domestic and Sanitary Waste  
 External Outfall

No Discharge

CAF001147 PERMIT NUMBER	005A-A DISCHARGE NUMBER
MM/DD/YYYY 10/01/2014	MM/DD/YYYY 10/31/2014

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Flow rate, domestic	SAMPLE MEASUREMENT	NODI (A)	*****	*****	*****	*****	*****	*****		
51667 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. MO AVG	*****	*****	*****	*****	*****	*****	Monthly	ESTIMA
Sanitary waste, residual chlorine	SAMPLE MEASUREMENT	*****	*****	*****	NODI (9)	NODI (9)	*****	*****		
82605 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	1 MINIMUM	10 MAXIMUM	*****	*****	Monthly	GRAB
Sanitary waste, flow	SAMPLE MEASUREMENT	76	*****	*****	*****	*****	*****	*****	Monthly	Estima
82606 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. MO AVG	*****	*****	*****	*****	*****	*****	Monthly	ESTIMA
Sanitary waste, solids	SAMPLE MEASUREMENT	*****	0	*****	*****	*****	*****	*****	Daily	Visual
82607 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	Req. Mon. MO AVG	*****	*****	*****	*****	*****	Daily	VISUAL
Domestic waste, foam and floating solids	SAMPLE MEASUREMENT	*****	NODI (A)	*****	*****	*****	*****	*****		
82608 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	Req. Mon. MO TOTAL	*****	*****	*****	*****	*****	Daily	VISUAL

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b> Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED	<b>SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT</b>  Marina Robertson, HSE Manager	<b>TELEPHONE</b> (562) 628 1526 AREA Code NUMBER	<b>DATE</b> 01 22 2015 MM/DD/YYYY
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**COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)**

- Domestic Waste is commingled with produced water at Platform Eilly.
- The sewage treatment unit is a marine sanitation device that complies with pollution control standards and regulations under Section 312 of the Clean Water Act. Thus, it is deemed to be in compliance with permit limitations for sanitary waste chlorine discharges

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
OIA 2040-0004

PERMITTEE NAME/ADDRESS (include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

CAF001147	006A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
MM/DD/YYYY	MM/DD/YYYY
10/01/2014	10/31/2014
<b>MONITORING PERIOD</b>	

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Blowout Preventer Fluid  
 External Outfall

No Discharge

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Free Oil Visual Sheen	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
51689 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	d	Daily	VISUAL	
Floating solids or visible foam-visual/days	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
51705 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	d	Daily	VISUAL	

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information on which this document is based. I am a duly licensed professional engineer and I am directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete, and I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	<b>TELEPHONE</b>	<b>DATE</b>
Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED		(562) 628 1526 AREA Code NUMBER	01 22 2015 MM/DD/YYYY
<b>SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT</b>			
Marina Robertson, HSE Manager 			

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
OK 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Desalination Unit Discharge  
 External Outfall

No Discharge  C

CAF001147 <b>PERMIT NUMBER</b>	007A-A <b>DISCHARGE NUMBER</b>
MM/DD/YYYY 10/01/2014	MM/DD/YYYY 10/31/2014

PARAMETER	QUANTITY OR LOADING		QUALITY OR CONCENTRATION		NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	VALUE	UNITS	VALUE	UNITS			
Floating solids or visible foam-visual/days	*****	*****	*****	*****			
51705 RW 0 Receiving Water	*****	*****	*****	d		Daily	VISUAL
			Req. Mon. MO TOTAL				

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b> Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information on which this report is based. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	M. Robertson Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	<b>TELEPHONE</b> (562) 628 1526	<b>DATE</b> 01 22 2015
			AREA Code NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

CAF001147	008A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
10/01/2014	10/31/2014

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Fire Control System Water  
 External Outfall

No Discharge  A

PARAMETER	QUANTITY OR LOADING		QUALITY OR CONCENTRATION		NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	VALUE	UNITS	VALUE	UNITS			
Floating solids or visible foam-visual/days	*****	*****	*****	*****			
51705 RW 0 Receiving Water	*****	*****	*****	*****		Daily	VISUAL
						Req. Mon. MO TOTAL	

**NAME/TITLE PRINCIPAL EXECUTIVE OFFICER**  
 Jim Guion  
 Executive Vice President, Chief Operating Officer  
 TYPED OR PRINTED

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who prepared the information and my review of the information submitted, I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

*M. Robertson*  
 Marina Robertson, HSE Manager  
**SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT**

<b>TELEPHONE</b>	<b>DATE</b>
(562) 628 1526	01 22 2015
AREA Code NUMBER	MM/DD/YYYY

**COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)**

1. Chemical Inventory, refer to Attachment 2
2. Fire Control System Water is commingled with Produced Water at Platform Elly.
3. Fire Control System Water is not chlorinated or chemically treated.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

CAF001147	009A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
10/01/2014	10/31/2014

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Non-Contact Cooling Water  
 External Outfall  
 No Discharge

PARAMETER	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Chlorine, total residual	*****	*****	*****	NODI (B)	mg/L	NODI (B)	0	Quarterly	Grab
50060 1 0 Effluent Gross	*****	*****	*****	.000583 MO AVG	mg/L	.0104 DAILY MIX		Quarterly	GRAB
Floating solids or visible foam-visual/days	*****	*****	*****	*****	d	0	0	Daily	Visual
51705 RW 0 Receiving Water Flow	*****	*****	*****	*****	d	Req. Mon. MO TOTAL		Daily	VISUAL
74076 1 0 Effluent Gross	36,000	bb/d	*****	*****	*****	*****	0	Monthly	Estima
	Req. Mon. MO AVG	bb/d	*****	*****	*****	*****		Monthly	ESTIMA

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	<b>TELEPHONE</b>	<b>DATE</b>
Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED	(562) 628 1526 AREA Code NUMBER	01 22 2015
 Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		MM/DD/YYYY

**COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)**

1. Chemical Inventory, refer to Attachment 2.
2. Uncontaminated Water, such as excess seawater, is commingled with non-contact cooling water
3. Chlorine values are reported post-dilution per EPA Plumes UM, if applicable.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802

ATTN: Marina Robertson

CAF001147	010A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
10/01/2014	10/31/2014

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Ballast and Storage Displacement Water  
 External Outfall

No Discharge  C

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Free Oil Visual Sheen	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
51689 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. MO TOTAL	d	Daily	VISUAL	
Floating solids or visible foam-visual/days	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
51705 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. MO TOTAL	d	Daily	VISUAL	
Flow	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****			
74076 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	Monthly	ESTIMA	

**NAME/TITLE PRINCIPAL EXECUTIVE OFFICER**  
 Jim Guion  
 Executive Vice President, Chief Operating Officer  
 TYPED OR PRINTED

*M. Robertson*  
 Marina Robertson, HSE Manager  
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE
(562) 628 1526	01 22 2015	
AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
OK 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
NAME: BETA OFFSHORE PLATFORM ELLEN - CAG280000  
ADDRESS: 111 West Ocean Blvd., Suite 1240  
LONG BEACH, CA 90802

FACILITY: PLATFORM ELLEN  
LOCATION: LAT 33 34 56.52N LO 118 07 41.6W  
PACIFIC OCEAN, CA 90802

ATTN: Marina Robertson

DMR Mailing ZIP CODE: 90802  
MINOR (SUBR FW)  
Bilge Water  
External Outfall

No Discharge  C

CAF001147	011A-A
PERMIT NUMBER	DISCHARGE NUMBER
MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
10/01/2014	10/31/2014

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Free Oil Visual Sheen	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
51689 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. MO TOTAL	d	Daily	VISUAL	
Floating solids or visible foam-visual/days	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
51705 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. MO TOTAL	d	Daily	VISUAL	
Flow	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****			
74076 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	Monthly	ESTIMA	

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person personally who furnished the information, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	TELEPHONE	DATE
Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED		(562) 628 1526 AREA Code NUMBER	01 22 2015 MM/DD/YYYY
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		M. Robertson Marina Robertson, HSE Manager	

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME: BETA OFFSHORE PLATFORM ELLEN - CAG280000  
ADDRESS: 111 West Ocean Blvd., Suite 1240  
LONG BEACH, CA 90802

FACILITY: PLATFORM ELLEN

LOCATION: LAT 33 34 56.52N LO 118 07 41.6W  
PACIFIC OCEAN, CA 90802

ATTN: Marina Robertson

CAF001147	012A-A
PERMIT NUMBER	DISCHARGE NUMBER
MM/DD/YYYY	MM/DD/YYYY
10/01/2014	10/31/2014
MONITORING PERIOD	

DMR Mailing ZIP CODE: 90802  
MINOR (SUBR FW)  
Boiler Blowdown  
External Outfall

No Discharge  C

PARAMETER	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Floating solids or visible foam-visual/days	*****	*****	*****	*****	*****	*****			
51705 RW 0 Receiving Water	*****	*****	*****	*****	*****	*****		Daily	VISUAL
						Req. Mon. MO TOTAL			

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Each person who furnishes information is hereby notified that any furnishing of false or misleading information on this report is subject to the criminal penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.		TELEPHONE	DATE
Jim Guion Executive Vice President, Chief Operating Officer			(562) 628 1526	01 22 2015
TYPED OR PRINTED	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		AREA Code NUMBER	MM/DD/YYYY
	 Marina Robertson, HSE-Manager AUTHORIZED AGENT			

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
01-2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

CAF001147	013A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
10/01/2014	10/31/2014

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Test Fluids  
 External Outfall

No Discharge  C

PARAMETER	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Free Oil Visual Sheen	*****	*****	*****	*****	*****	*****			
51689 RW 0 Receiving Water	*****	*****	*****	*****	*****	*****		Daily	VISUAL
Floating solids or visible foam-visual/days	*****	*****	*****	*****	*****	*****			
51705 RW 0 Receiving Water	*****	*****	*****	*****	*****	*****		Daily	VISUAL
Flow	*****	*****	*****	*****	*****	*****			
74076 1 0 Effluent Gross	Req. Mon. MO AVG	*****	*****	*****	*****	*****		Monthly	ESTIMA

**NAME/TITLE PRINCIPAL EXECUTIVE OFFICER**  
 Jim Guion  
 Executive Vice President, Chief Operating Officer  
 TYPED OR PRINTED

*M. Robertson*  
 Marina Robertson, HSE Manager  
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE	DATE
(562) 628 1526	01 22 2015
AREA Code NUMBER	MM/DD/YYYY

**COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)**  
 1. Chemical Inventory, refer to Attachment 2.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
OK 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Diatomaceous Earth Filter Media  
 External Outfall

No Discharge **C**

CAF001147 <b>PERMIT NUMBER</b>	014A-A <b>DISCHARGE NUMBER</b>
MM/DD/YYYY 10/01/2014	MM/DD/YYYY 10/31/2014

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Free Oil Visual Sheen	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
51689 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	
Floating solids or visible foam-visual/days	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
51705 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who provided the information submitted, I believe the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b> Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED	 Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	<b>TELEPHONE</b> (562) 628 1526 AREA Code NUMBER	<b>DATE</b> 01 22 2015 MM/DD/YYYY
---	--	--	---

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
OK 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Bulk Transfer Material Overflow  
 External Outfall

No Discharge

CAF001147 <b>PERMIT NUMBER</b>	015A-A <b>DISCHARGE NUMBER</b>
MM/DD/YYYY 10/01/2014	MM/DD/YYYY 10/31/2014

PARAMETER	QUANTITY OR LOADING		QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	VALUE	UNITS	VALUE	VALUE	UNITS			
Floating solids or visible foam-visual/days	*****	*****	*****	*****	d	0	Daily	Visual
51705 RW 0 Receiving Water	*****	*****	*****	Req. Mon. MO TOTAL	d		Daily	VISUAL

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b> Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) who prepared this information and my review of the information submitted, I believe that this information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	<b>TELEPHONE</b> (562) 628 1526	<b>DATE</b> 01 22 2015
<b>SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT</b>  Marina Robertson, HSE Manager		<b>AREA Code</b> 562	<b>NUMBER</b> 628 1526

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
01 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Uncontaminated Water  
 External Outfall

No Discharge  A

CAF001147 <b>PERMIT NUMBER</b>	016A-A <b>DISCHARGE NUMBER</b>
MM/DD/YYYY 10/01/2014	MM/DD/YYYY 10/31/2014

PARAMETER	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Floating solids or visible foam-visual/days	*****	*****	*****	*****	*****	*****			
51705 RW 0 Receiving Water	*****	*****	*****	*****	*****	*****		Daily	VISUAL
						Req. Mon. MO TOTAL			

<b>NAME/TITLE</b> PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, the information and data submitted hereon are true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.		<b>TELEPHONE</b>	<b>DATE</b>
Jim Guion Executive Vice President, Chief Operating Officer			(562) 628 1526	01 22 2015
<b>TYPED OR PRINTED</b>			AREA Code NUMBER	MM/DD/YYYY

*M. Robertson*  
 Marina Robertson, HSE Manager  
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

**COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)**  
 1. Uncontaminated Water, such as excess seawater, is commingled with non-contact cooling water

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802

DMR Mailing ZIP CODE: 90802

MINOR (SUBR FW)  
 Water Flooding Discharges  
 External Outfall

No Discharge  C

CAF001147	017A-A
PERMIT NUMBER	DISCHARGE NUMBER
MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
10/01/2014	10/31/2014

ATTN: Marina Robertson

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Free Oil Visual Sheen	MEASUREMENT	*****	*****	*****	*****	*****				
51689 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	d	Daily	VISUAL	
Floating solids or visible foam-visual/days	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
51705 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	d	Daily	VISUAL	

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b> Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who prepared the information, or those persons directly responsible for gathering the information, I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	TELEPHONE (562) 628 1526	DATE 01 22 2015
		AREA Code NUMBER SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT  Marina Robertson, HSE Manager	NUMBER MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

1. Chemical Inventory, refer to Attachment 2.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME: BETA OFFSHORE PLATFORM ELLEN - CAG280000  
ADDRESS: 111 West Ocean Blvd., Suite 1240  
LONG BEACH, CA 90802

FACILITY: PLATFORM ELLEN

LOCATION: LAT 33 34 56.52N LO 118 07 41.6W  
PACIFIC OCEAN, CA 90802

ATTN: Marina Robertson

DMR Mailing ZIP CODE: 90802

MINOR (SUBR FW)  
Laboratory Waste  
External Outfall

No Discharge  A

CAF001147	018A-A
PERMIT NUMBER	DISCHARGE NUMBER
MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
10/01/2014	10/31/2014

PARAMETER	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Free Oil Visual Sheen	*****	*****	*****	*****	*****	*****			
51689 RW 0 Receiving Water	*****	*****	*****	*****	*****	Req. Mon. MO TOTAL	Daily	VISUAL	
Floating solids or visible foam-visual/days	*****	*****	*****	*****	*****				
51705 RW 0 Receiving Water	*****	*****	*****	*****	*****	Req. Mon. MO TOTAL	Daily	VISUAL	

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Each individual who furnishes information to this report has provided the information truthfully, and to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	TELEPHONE	DATE
		(562) 628 1526 AREA Code NUMBER	01 22 2015 MM/DD/YYYY
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT  Marina Robertson, HSE Manager			

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

- Laboratory Waste commingled with Produced Water

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
OK 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802

ATTN: Marina Robertson

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Excess Cement Slurry  
 External Outfall

No Discharge  C

CAF001147 <b>PERMIT NUMBER</b>	019A-A <b>DISCHARGE NUMBER</b>
MM/DD/YYYY 10/01/2014	MM/DD/YYYY 10/31/2014

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Free Oil Visual Sheen	MEASUREMENT	*****	*****	*****	*****	*****				
51689 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. MO TOTAL	d	Daily	VISUAL	
Floating solids or visible foam-visual/days	MEASUREMENT	*****	*****	*****	*****					
51705 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. MO TOTAL	d	Daily	VISUAL	
Flow	MEASUREMENT	*****	*****	*****	*****					
74076 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. MO AVG	*****	*****	*****			Monthly	ESTIMA	
Flow	MEASUREMENT	0	*****	*****	*****			Annual	Calctd	
74076 EG 0 Effluent Gross	PERMIT REQUIREMENT	1200 YTD TOT	*****	*****	*****			Annual	CALCTD	

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	<b>TELEPHONE</b>	<b>DATE</b>
Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED		(562) 628 1526 AREA Code NUMBER	01 22 2015 MM/DD/YYYY
 Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT			

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

1. Annual cumulative Volumes and Limits for the period covering Mar. 1 through Feb. 28th each year.
2. The total annual cumulative volume limit is a combined limit of excess cement slurry volumes from both Platforms Ellen and Elly

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME: BETA OFFSHORE PLATFORM ELLEN - CAG280000  
ADDRESS: 111 West Ocean Blvd., Suite 1240  
LONG BEACH, CA 90802

FACILITY: PLATFORM ELLEN  
LOCATION: LAT 33 34 56.52N LO 118 07 41.6W  
PACIFIC OCEAN, CA 90802

ATTN: Marina Robertson

CAF001147	020A-A
PERMIT NUMBER	DISCHARGE NUMBER
MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
10/01/2014	10/31/2014

DMR Mailing ZIP CODE: 90802  
MINOR (SUBR FW)  
Muds, Cuttings and Cement at Sea Floor  
External Outfall

No Discharge  C

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Free Oil Visual Sheen	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
51689 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	
Floating solids or visible foam-visual/days	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
51705 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	TELEPHONE		DATE
Jim Guion	(562) 628 1526		01 22 2015
Executive Vice President, Chief Operating Officer	AREA Code	NUMBER	MM/DD/YYYY
TYPED OR PRINTED	AUTHORIZED AGENT		
<p><i>M. Robertson</i> Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT</p>			

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
Of 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

CAF001147 <b>PERMIT NUMBER</b>	021A-A <b>DISCHARGE NUMBER</b>
MM/DD/YYYY 10/01/2014	MM/DD/YYYY 10/31/2014

**MONITORING PERIOD**

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Hydrotect Water  
 External Outfall  
**No Discharge**  C

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Chlorine, total residual	MEASUREMENT	*****	*****	*****	*****	*****				
50060 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Monthly	GRAB	
Free Oil Visual Sheen	MEASUREMENT	*****	*****	*****	*****	*****				
51689 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	
Floating solids or visible foam-visual/days	MEASUREMENT	*****	*****	*****	*****	*****				
51705 RW 0 Receiving Water Flow	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	
74076 1 0 Effluent Gross	MEASUREMENT	*****	*****	*****	*****	*****		Monthly	ESTIMA	

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b> Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision by persons designated to ensure that all information reported hereon is true and accurate. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	M. Robertson Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	<b>TELEPHONE</b> (562) 628 1526	<b>DATE</b> 01 22 2015
			AREA Code NUMBER	MM/DD/YYYY

**COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)**

1. Chemical Inventory, refer to Attachment 2.
2. Submit RP analysis per permit requirement after sampling is completed.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 H2S Gas Processing Waste Water  
 External Outfall  
 No Discharge

CAF001147 <b>PERMIT NUMBER</b>	022A-A <b>DISCHARGE NUMBER</b>
MM/DD/YYYY 10/01/2014	MM/DD/YYYY 10/31/2014

ATTN: Marina Robertson

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Free Oil Visual Sheen	MEASUREMENT	*****	*****	*****	*****	*****				
51689 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. MO TOTAL	d	Daily	VISUAL	
Floating solids or visible foam-visual/days	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
51705 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. MO TOTAL	d	Daily	VISUAL	
Flow	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****			
74076 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. MO AVG	*****	*****	*****	*****	*****	Monthly	ESTIMA	

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	 Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	<b>TELEPHONE</b>	<b>DATE</b>
Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED		(562) 628 1526	01 22 2015
		AREA Code	NUMBER
			MM/DD/YYYY

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who prepared the information submitted, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
OK 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

CAF001147	001A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
1/01/2014	11/30/2014

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Drilling Fluids and Cuttings  
 External Outfall

No Discharge  C

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Oil based fluids, non-aqueous based drilling fluids and cuttings	PERMIT REQUIREMENT	*****		*****	*****	*****	*****			
51707 1 0 Effluent Gross	SAMPLE MEASUREMENT	Req. Mon. VALUE	Y=1;N=0	*****	*****	*****	*****	End Of Well	GRAB	
Cadmium [Cd], in barite, dry weight	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	Once per Batch	Grab	
78244 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	*****	3 DAILY MX	*****	Once per Batch	GRAB	
Mercury [Hg], in barite, dry weight	PERMIT REQUIREMENT	*****	*****	*****	*****	< 0.05	*****	Once per Batch	Grab	
78245 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	*****	1 DAILY MX	*****	Once per Batch	GRAB	
Drilling fluids, free oil	PERMIT REQUIREMENT	*****	*****	*****	*****	NODI (C)	*****			
82589 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	*****	Req. Mon. MO TOTAL	*****	Daily when Discharging	GRAB	
Drilling fluids, volume	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****			
82594 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	Daily	ESTIMA	
Drilling fluids, volume	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	Annual	Calctd	
82594 EG 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	Annual	CALCTD	
Drill cuttings, free oil	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****			
82595 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	Daily	GRAB	

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	<b>TELEPHONE</b>		<b>DATE</b>
Jim Guion	(562) 628 1526		01 22 2015
Executive Vice President, Chief Operating Officer	AREA Code	NUMBER	MM/DD/YYYY
<b>TYPED OR PRINTED</b>	<b>SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT</b>		
	 Marina Robertson, HSE Manager		

**COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)**

1. Drilling fluid and cutting, free oil refers to free oil static sheen test.
2. Drilling fluids & Drill Cuttings annual cumulative volume from Mar 1st thru Feb 28th each year.
3. Drill fluid inventory refer to Attachment 6. Barite analysis refer to Attachment 7.
4. The total annual cumulative volume limit is a combined limit of drilling fluid volumes from both Platforms Ellen and Elly, as listed in the permit.
5. Well A-23 drilling activities began October 6 and completed on November 16, 2014. No discharges in Nov.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
OK 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802

ATTN: Marina Robertson

**DMR Mailing ZIP CODE:** 90802  
 MINOR  
 (SUBR FW)  
 Drilling Fluids and Cuttings  
 External Outfall

No Discharge **C**

CAF001147 <b>PERMIT NUMBER</b>	001A-A <b>DISCHARGE NUMBER</b>
MM/DD/YYYY 11/01/2014	MM/DD/YYYY 11/30/2014

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Drilling cuttings, volume	MEASUREMENT	*****	bbl	*****	*****	*****	*****			
82596 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	bbl	Req. Mon. DAILY MX	*****	*****	*****	Daily	ESTIMA	
Drilling cuttings, volume	MEASUREMENT	*****	bbl	320	*****	*****	*****	0	Annual	Calctd
82596 EG 0 Effluent Gross	PERMIT REQUIREMENT	*****	bbl	18150 YTD TOT	*****	*****	*****	Annual	CALCTD	
LC50 Static 96Hr Acute Mysid. Bahia	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****			
TAB3E 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	3 MINIMUM	*****	*****	*****	Contingent	GRAB	
LC50 Static 96Hr Acute Mysid. Bahia	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****			
TAB3E EG 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	3 MINIMUM	*****	*****	*****	Contingent	GRAB	
LC50 Static 96Hr Acute Mysid. Bahia	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****			
TAB3E O 0 See Comments	PERMIT REQUIREMENT	*****	*****	3 MINIMUM	*****	*****	*****	Contingent	GRAB	

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	<b>TELEPHONE</b>	<b>DATE</b>
Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED	(562) 628 1526 AREA Code NUMBER	01 22 2015 MM/DD/YYYY
 Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

1. Drilling fluid and cutting, free oil refers to free oil static sheen test.
2. Drilling fluids & Drill Cuttings annual cumulative volume from Mar 1st thru Feb 28th each year.
3. Drill fluid inventory refer to Attachment 4. Barite analysis refer to Attachment5.
4. The total annual cumulative volume limit is a combined limit of drilling fluid volumes from both Platforms Ellen and Elly, as listed in the permit.
5. Well A-23 drilling activities began on October 16, 2014. No discharges in Nov.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802

ATTN: Marina Robertson

CAF001147	002A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
1/01/2014	1/30/2014

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Produced Water Monthly  
 External Outfall

No Discharge **A**

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Oil and grease, hexane extr method		*****	*****	*****						
00552 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	29 MO AVG	*****	42 DAILY MX	mg/L	Weekly	GRAB
Produced water, flow	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****	*****		
82600 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. MO AVG	*****	*****	*****	*****	*****	*****	Daily	ESTIMA

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	 Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	<b>TELEPHONE</b>	<b>DATE</b>
Jim Guion Executive Vice President, Chief Operating Officer		(562) 628 1526	01 22 2015
<b>TYPED OR PRINTED</b>		AREA Code	NUMBER

**COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)**

- Eily-only platform capable of discharging PW All produced water is sent to Eily for processing (refer to Pit Eily DMR).
- PW annual cumulative flow from Mar 1st thru Feb 28th each year
- If PW is discharged, 12 mo of monitoring is required for RP analysis,

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802

CAF001147	003A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
1/01/2014	1/30/2014

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Well Treatment, Completion and Workover Fluid  
 External Outfall

No Discharge

ATTN: Marina Robertson

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Well fluids, oil & grease	SAMPLE MEASUREMENT	*****	*****	*****	NODI (A)	*****				
04379 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	29 MO AVG	42 DAILY MX	mg/L	Once per Occurance	GRAB	
Number of Events Completion Job	SAMPLE MEASUREMENT	*****	#	*****	*****	*****	*****	0	Once per Occurance	Calcd
51484 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	#	*****	*****	*****	*****		Once per Occurance	CALCTD
Well fluids, free oil	SAMPLE MEASUREMENT	*****	NODI (A)	*****	*****	*****	*****			
82603 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	Req. Mon. MO TOTAL	*****	*****	*****	*****		Once per Discharge	GRAB
Well fluids, volume	SAMPLE MEASUREMENT	NODE (A)		*****	*****	*****	*****			
82604 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. MO AVG	Req. Mon. MO TOTAL	*****	*****	*****	*****		Once per Occurance	ESTIMA

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Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED	 Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		(562) 628 1526 AREA Code NUMBER	01 22 2015 MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

1. Type and # of Job: Completion, workover, treatment or combination.
2. Free Oil Static Sheen Test.
3. A completion job was performed on November 12. A Chemical Inventory is included in Attachment 6.
4. When present, all WTCWF are commingled with production and sent to Platform Elly (refer to Pit Elly DMR).

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802

ATTN: Marina Robertson

**DMR Mailing ZIP CODE:** 90802  
 MINOR  
 (SUBR FW)  
 Deck Drainage  
 External Outfall

No Discharge  A

CAF001147	004A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
MM/DD/YYYY	MM/DD/YYYY
11/01/2014	11/30/2014
<b>MONITORING PERIOD</b>	

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Flow rate, deck drainage		*****		*****	*****	*****				
51666 1 0 Effluent Gross	PERMIT REQUIREMENT	*****		*****	*****	*****		Monthly	ESTIMA	
Free Oil Visual Sheen	SAMPLE MEASUREMENT	*****		*****	*****	*****				
51689 RW 0 Receiving Water	PERMIT REQUIREMENT	*****		*****	*****	*****		Daily	VISUAL	
						Req. Mon. MO TOTAL	d			

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who provided the information, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	<b>TELEPHONE</b>	<b>DATE</b>
Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED		(562) 628 1526 AREA Code NUMBER	01 22 2015
<b>SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT</b>			
 Marina Robertson, HSE Manager AUTHORIZED AGENT			

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

1. Free Oil Sheen - # days observed
2. Deck Drainage is commingled with Produced Water and treated at Platform Elly (refer to Pit Elly DMR).

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG2800000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802

**DMR Mailing ZIP CODE:** 90802  
**MINOR**  
 (SUBR FW)  
 Domestic and Sanitary Waste  
 External Outfall

No Discharge

CAF001147	005A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
MM/DD/YYYY	MM/DD/YYYY
11/01/2014	11/30/2014
<b>MONITORING PERIOD</b>	

ATTN: Marina Robertson

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Flow rate, domestic		NODI (A)	*****	*****	*****	*****	*****			
51667 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. MO AVG	*****	bb/d	*****	*****	*****	Monthly	ESTIMA	
Sanitary waste, residual chlorine	SAMPLE MEASUREMENT	*****	*****	*****	NODI (9)	NODI (9)	*****			
82605 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	1 MINIMUM	10 MAXIMUM	*****	Monthly	GRAB	
Sanitary waste, flow	SAMPLE MEASUREMENT	75	*****	bb/d	*****	*****	*****	Monthly	Estima	
82606 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. MO AVG	*****	bb/d	*****	*****	*****	Monthly	ESTIMA	
Sanitary waste, solids	SAMPLE MEASUREMENT	*****	0	# dis/d	*****	*****	*****	Daily	Visual	
82607 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	Req. Mon. MO AVG	# dis/d	*****	*****	*****	Daily	VISUAL	
Domestic waste, foam and floating solids	SAMPLE MEASUREMENT	*****	NODI (A)	NODI (A)	*****	*****	*****			
82608 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	Req. Mon. MO TOTAL	#/mo	*****	*****	*****	Daily	VISUAL	

*M. Robertson*

Marina Robertson, HSE Manager  
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	TELEPHONE		DATE
Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED	(562) 628 1526		01 22 2015
	AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

- Domestic Waste is commingled with produced water at Platform Elly.
- The sewage treatment unit is a marine sanitation device that complies with pollution control standards and regulations under Section 312 of the Clean Water Act. Thus, it is deemed to be in compliance with permit limitations for sanitary waste chlorine discharges

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Blowout Preventer Fluid  
 External Outfall

No Discharge  C

CAF001147	006A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
11/01/2014	11/30/2014

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Free Oil Visual Sheen	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
51689 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	
Floating solids or visible foam-visual/days	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
51705 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) who prepared the information and my review of the information submitted, I believe the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	<b>TELEPHONE</b>	<b>DATE</b>
Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED		(562) 628 1526 AREA Code NUMBER	01 22 2015
<b>SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT</b>			
 Marina Robertson, HSE Manager AUTHORIZED AGENT			

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
OK 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

CAF001147	007A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
11/01/2014	11/30/2014

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Desalination Unit Discharge  
 External Outfall

No Discharge  C

PARAMETER	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Floating solids or visible foam-visual/days	*****	*****	*****	*****	*****	*****			
51705 RW 0 Receiving Water	*****	*****	*****	*****	*****	*****		Daily	VISUAL
								Req. Mon. MO TOTAL	

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who made the information reported hereon, the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.		<b>TELEPHONE</b>	<b>DATE</b>
Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED			(562) 628 1526 AREA Code NUMBER	01 22 2015
	Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT			

*M. Robertson*

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
OIA 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Fire Control System Water  
 External Outfall

No Discharge  A

CAF001147	008A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
MM/DD/YYYY	MM/DD/YYYY
11/01/2014	11/30/2014
<b>MONITORING PERIOD</b>	

PARAMETER	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Floating solids or visible foam-visual/days	*****	*****	*****	*****	*****	*****			
51705 RW 0 Receiving Water	*****	*****	*****	*****	*****	*****		Daily	VISUAL
						Req. Mon. MO TOTAL			

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	I certify, under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my knowledge and belief, true, accurate, and complete, and complete, I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.		<b>TELEPHONE</b>	<b>DATE</b>
Jim Guion Executive Vice President, Chief Operating Officer	 Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		(562) 628 1526	01 22 2015
<b>TYPED OR PRINTED</b>			AREA Code	NUMBER

**COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)**  
 1. Chemical Inventory, refer to Attachment 2  
 2. Fire Control System Water is commingled with Produced Water at Platform Elly.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
NAME: BETA OFFSHORE PLATFORM ELLEN - CAG280000  
ADDRESS: 111 West Ocean Blvd., Suite 1240  
LONG BEACH, CA 90802

FACILITY: PLATFORM ELLEN  
LOCATION: LAT 33 34 56.52N LO 118 07 41.6W  
PACIFIC OCEAN, CA 90802

ATTN: Marina Robertson

CAF001147	009A-A
PERMIT NUMBER	DISCHARGE NUMBER
MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
11/01/2014	11/30/2014

DMR Mailing ZIP CODE: 90802  
MINOR (SUBR FW)  
Non-Contact Cooling Water  
External Outfall

No Discharge

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Chlorine, total residual	MEASUREMENT	*****	*****	*****	NODI (9)	NODI (9)				
50060 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	.000583 MO AVG	.0104 DAILY MX	mg/L	Quarterly	GRAB	
Floating solids or visible foam-visual/days	SAMPLE MEASUREMENT	*****	*****	*****	*****	0	d	Daily	Visual	
51705 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. MO TOTAL	d	Daily	VISUAL	
Flow	SAMPLE MEASUREMENT	36,000	bb/d	*****	*****	*****	*****	Monthly	Estima	
74076 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. MO AVG	bb/d	*****	*****	*****	*****	Monthly	ESTIMA	

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NAME/TITLE	TELEPHONE	DATE
Jim Guion Executive Vice President, Chief Operating Officer	(562) 628 1526	01 22 2015
TYPED OR PRINTED	AREA Code	NUMBER
		MM/DD/YYYY

*M. Robertson*  
Marina Robertson, HSE Manager  
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

1. Chemical Inventory, refer to Attachment 2.
2. Uncontaminated Water, such as excess seawater, is commingled with non-contact cooling water
3. Chlorine values are reported post-dilution per EPA Plumes UIM, if applicable.

4. NODI(9): Quarterly/not required this month

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
OK 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG2800000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Ballast and Storage Displacement Water  
 External Outfall

No Discharge  C

CAF001147	010A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
11/01/2014	11/30/2014

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Free Oil Visual Sheen	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
51689 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. MO TOTAL	d	Daily	VISUAL	
Floating solids or visible foam-visual/days	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
51705 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. MO TOTAL	d	Daily	VISUAL	
Flow	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****			
74076 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	Monthly	ESTIMA	

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.			<b>TELEPHONE</b>	<b>DATE</b>
Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED	 Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT			(562) 628 1526	01 22 2015
				AREA Code	NUMBER

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
OK 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802

ATTN: Marina Robertson

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Bilge Water  
 External Outfall

No Discharge  C

CAF001147 <b>PERMIT NUMBER</b>	011A-A <b>DISCHARGE NUMBER</b>
MMDD/YYYY 11/01/2014	MMDD/YYYY 11/30/2014

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Free Oil Visual Sheen	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
51689 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. MO TOTAL	d	Daily	VISUAL	
Floating solids or visible foam-visual/days	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
51705 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. MO TOTAL	d	Daily	VISUAL	
Flow	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****			
74076 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. MO AVG	*****	*****	*****	*****	*****	Monthly	ESTIMA	

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b> Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED	 Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	<b>TELEPHONE</b> (562) 628 1526	<b>DATE</b> 01 22 2015
		AREA Code	NUMBER

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my knowledge and belief, the information submitted is true, accurate, and complete, and I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
NAME: BETA OFFSHORE PLATFORM ELLEN - CAG280000  
ADDRESS: 111 West Ocean Blvd., Suite 1240  
LONG BEACH, CA 90802

FACILITY: PLATFORM ELLEN  
LOCATION: LAT 33 34 56.52N LO 118 07 41.6W  
PACIFIC OCEAN, CA 90802

ATTN: Marina Robertson

DMR Mailing ZIP CODE: 90802  
MINOR (SUBR FW)  
Boiler Blowdown  
External Outfall

No Discharge  C

CAF001147	012A-A
PERMIT NUMBER	DISCHARGE NUMBER
MM/DD/YYYY	MM/DD/YYYY
11/01/2014	11/30/2014
MONITORING PERIOD	

PARAMETER	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Floating solids or visible foam-visual/days	*****	*****	*****	*****	*****	*****			
51705 RW 0 Receiving Water	*****	*****	*****	*****	*****	*****		Daily	VISUAL
						Req. Mon. MO TOTAL			

NAME/TITLE	PRINCIPAL EXECUTIVE OFFICER	TELEPHONE	DATE
Jim Guion		(562) 628 1526	01 22 2015
Executive Vice President, Chief Operating Officer		AREA Code NUMBER	MM/DD/YYYY
TYPED OR PRINTED			
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT			
 Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT			

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who prepared the information and my review of the information submitted, I believe the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

CAF001147	013A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
11/01/2014	11/30/2014

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Test Fluids  
 External Outfall

No Discharge  C

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Free Oil Visual Sheen	MEASUREMENT	*****	*****	*****	*****	*****				
51689 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
Floating solids or visible foam-visual/days	MEASUREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	
51705 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
Flow	MEASUREMENT	*****	*****	*****	*****	*****				
74076 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. MO AVG	*****	*****	*****	*****		Monthly	ESTIMA	

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed, implemented, and maintained by me (Principal Executive Officer) and the information submitted hereon is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	<b>TELEPHONE</b>	<b>DATE</b>
Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED		(562) 628 1526 AREA Code NUMBER	01 22 2015
		M. Robertson Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	

**COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)**

1. Chemical Inventory, refer to Attachment 2.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

CAF001147	014A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
11/01/2014	11/30/2014

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Diatomaceous Earth Filter Media  
 External Outfall  
**No Discharge**

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Free Oil Visual Sheen	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
51689 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	
Floating solids or visible foam-visual/days	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
51705 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who provided the information, and my review of the information submitted, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	<b>TELEPHONE</b>	<b>DATE</b>
Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED		(562) 628 1526 AREA Code NUMBER	01 22 2015 MM/DD/YYYY
<b>SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT</b>			
 Marina Robertson, HSE Manager AUTHORIZED AGENT			

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Bulk Transfer Material Overflow  
 External Outfall  
 No Discharge

CAF001147	015A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
11/01/2014	11/30/2014

PARAMETER	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Floating solids or visible foam-visual/days	*****	*****	*****	*****	d	0	Daily	Visual	
51705 RW 0 Receiving Water	*****	*****	*****	Req. Mon. MO TOTAL	d		Daily	VISUAL	

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	I certify, under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified persons prepared the information and that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	<b>TELEPHONE</b>	<b>DATE</b>
Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED		(562) 628 1526 AREA Code NUMBER	01 22 2015
<b>SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT</b>		M. Robertson Marina Robertson, HSE Manager	

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Uncontaminated Water  
 External Outfall

No Discharge **A**

CAF001147	016A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
MM/DD/YYYY	MM/DD/YYYY
11/01/2014	11/30/2014
<b>MONITORING PERIOD</b>	

PARAMETER	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Floating solids or visible foam-visual/days	*****	*****	*****	*****					
51705 RW 0 Receiving Water	*****	*****	*****	*****	d	Req. Mon. MO TOTAL	Daily	VISUAL	

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.		<b>TELEPHONE</b>	<b>DATE</b>
Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED			(562) 628 1526 AREA Code NUMBER	01 22 2015
<b>SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT</b>				
 Marina Robertson, HSE Manager AUTHORIZED AGENT				

**COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)**  
 1. Uncontaminated Water, such as excess seawater, is commingled with non-contact cooling water

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802

CAF001147	017A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
MM/DD/YYYY	MM/DD/YYYY
11/01/2014	11/30/2014
<b>MONITORING PERIOD</b>	

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Water Flooding Discharges  
 External Outfall

No Discharge  C

ATTN: Marina Robertson

PARAMETER	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Free Oil Visual Sheen	*****	*****	*****	*****	*****	*****			
51689 RW 0 Receiving Water	*****	*****	*****	*****	*****	Req. Mon. MO TOTAL	Daily	Daily	VISUAL
Floating solids or visible foam-visual/days	*****	*****	*****	*****	*****				
51705 RW 0 Receiving Water	*****	*****	*****	*****	*****	Req. Mon. MO TOTAL	Daily	Daily	VISUAL

**NAME/TITLE PRINCIPAL EXECUTIVE OFFICER**  
 Jim Guion  
 Executive Vice President, Chief Operating Officer  
 TYPED OR PRINTED

*M. Robertson*  
 Marina Robertson, HSE Manager  
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE	DATE
(562) 628 1526	01 22 2015
AREA Code	NUMBER
	MM/DD/YYYY

**COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)**  
 1. Chemical Inventory, refer to Attachment 2.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Laboratory Waste  
 External Outfall

No Discharge **A**

CAF001147 <b>PERMIT NUMBER</b>	018A-A <b>DISCHARGE NUMBER</b>
MM/DD/YYYY 11/01/2014	MM/DD/YYYY 11/30/2014

ATTN: Marina Robertson

PARAMETER	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Free Oil Visual Sheen	*****	*****	*****	*****	*****	*****			
51689 RW 0 Receiving Water	*****	*****	*****	*****	*****	Req. Mon. MO TOTAL		Daily	VISUAL
Floating solids or visible foam-visual/days	*****	*****	*****	*****	*****	*****			
51705 RW 0 Receiving Water	*****	*****	*****	*****	*****	Req. Mon. MO TOTAL		Daily	VISUAL

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b> Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED	 Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	<b>TELEPHONE</b> (562) 628 1526	<b>DATE</b> 01 22 2015
		AREA Code	NUMBER

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

- Laboratory Waste commingled with Produced Water

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

CAF001147	019A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
11/01/2014	11/30/2014

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Excess Cement Slurry  
 External Outfall

No Discharge  C

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Free Oil Visual Sheen	MEASUREMENT	*****	*****	*****	*****	*****				
51689 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. MO TOTAL	d	Daily	Daily	VISUAL
Floating solids or visible foam-visual/days	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
51705 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. MO TOTAL	d	Daily	Daily	VISUAL
Flow	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****	*****			
74076 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	Monthly	Monthly	ESTIMA
Flow	SAMPLE MEASUREMENT	0	bb/yr	*****	*****	*****	*****	Annual	Annual	Calcd
74076 EG 0 Effluent Gross	PERMIT REQUIREMENT	1200 YTD TOT	bb/yr	*****	*****	*****	*****	Annual	Annual	CALCTD

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	<b>TELEPHONE</b>	<b>DATE</b>
Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED	(562) 628 1526 AREA Code NUMBER	01 22 2015 MM/DD/YYYY
 Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

1. Annual cumulative Volumes and Limits for the period covering Mar. 1 through Feb. 28th each year.
2. The total annual cumulative volume limit is a combined limit of excess cement slurry volumes from both Platforms Ellen and Eilly

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Muds, Cuttings and Cement at Sea Floor  
 External Outfall

No Discharge **C**

CAF001147	020A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
11/01/2014	11/30/2014

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Free Oil Visual Sheen	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
51689 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	
Floating solids or visible foam-visual/days	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
51705 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	 Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	<b>TELEPHONE</b>	<b>DATE</b>
Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED		(562) 628 1526	01 22 2015
		AREA Code	NUMBER
			MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802

CAF001147	021A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY 11/01/2014	MM/DD/YYYY 11/30/2014

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Hydrotect Water  
 External Outfall

No Discharge  C

ATTN: Marina Robertson

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Chlorine, total residual	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
50060 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Monthly	GRAB	
Free Oil Visual Sheen	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
51689 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	
Floating solids or visible foam-visual/days	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
51705 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	
Flow	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
74076 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. MO AVG	*****	*****	*****	*****		Monthly	ESTIMA	

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) who prepared the information and my review of the information submitted, I am aware that there are significant omissions or material misstatements of fact; the information submitted is true, accurate, and complete; and I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.		<b>TELEPHONE</b>	<b>DATE</b>
Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED			(562) 628 1526 AREA Code NUMBER	01 22 2015 MM/DD/YYYY
<b>SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT</b>				
 Marina Robertson, HSE Manager				

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

1. Chemical Inventory, refer to Attachment 2.
2. Submit RP analysis per permit requirement after sampling is completed.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

For Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
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 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

CAF001147	022A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
11/01/2014	11/30/2014

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 H2S Gas Processing Waste Water  
 External Outfall

No Discharge  C

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Free Oil Visual Sheen	MEASUREMENT	*****	*****	*****	*****	*****				
51689 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	
Floating solids or visible foam-visual/days	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
51705 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	
Flow	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
74076 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. MO AVG	*****	*****	*****	*****		Monthly	ESTIMA	

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	 Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	<b>TELEPHONE</b>	<b>DATE</b>
Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED		(562) 628 1526	01 22 2015
		AREA Code	NUMBER
			MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG2800000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Drilling Fluids and Cuttings  
 External Outfall

No Discharge  C

CAF001147	001A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
MM/DD/YYYY	MM/DD/YYYY
12/01/2014	12/31/2014
<b>MONITORING PERIOD</b>	

ATTN: Marina Robertson

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Oil based fluids, non-aqueous based drilling fluids and cuttings	SAMPLE MEASUREMENT	*****		*****	*****	*****				
51707 10 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. VALUE	Y=1;N=0	*****	*****	*****		End Of Well	GRAB	
Cadmium [Cd], in barite, dry weight	SAMPLE MEASUREMENT	*****		*****	*****	*****				
78244 10 Effluent Gross	PERMIT REQUIREMENT	*****		*****	*****	3 DAILY MX	mg/kg	Once per Batch	GRAB	
Mercury [Hg], in barite, dry weight	SAMPLE MEASUREMENT	*****		*****	*****	*****				
78245 10 Effluent Gross	PERMIT REQUIREMENT	*****		*****	*****	1 DAILY MX	mg/kg	Once per Batch	GRAB	
Drilling fluids, free oil	SAMPLE MEASUREMENT	*****		*****	*****	*****				
82589 10 Effluent Gross	PERMIT REQUIREMENT	*****		*****	*****	Req. Mon. MO TOTAL	d	Daily when Discharging	GRAB	
Drilling fluids, volume	SAMPLE MEASUREMENT	*****		*****	*****	*****				
82594 10 Effluent Gross	PERMIT REQUIREMENT	*****		*****	*****	*****		Daily	ESTIMA	
Drilling fluids, volume	SAMPLE MEASUREMENT	*****		*****	*****	*****		Annual	Calctd	
82594 EG 0 Effluent Gross	PERMIT REQUIREMENT	*****		*****	*****	*****		Annual	CALCTD	
Drill cuttings, free oil	SAMPLE MEASUREMENT	*****		*****	*****	*****				
82595 10 Effluent Gross	PERMIT REQUIREMENT	*****		*****	*****	*****		Daily	GRAB	

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) who prepared the information and the information submitted, I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.		TELEPHONE (562) 628 1526	DATE 01 22 2015
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT  Marina Robertson, HSE Manager	
		AREA Code (562)	NUMBER 628 1526
		MM/DD/YYYY	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

1. Drilling fluid and cutting, free oil refers to free oil static sheen test.
2. Drilling fluids & Drill Cuttings annual cumulative volume from Mar 1st thru Feb 28th each year. and Ely, as listed in the permit.
3. Drill fluid inventory refer to referenced Attachment, when applicable.
4. The total annual cumulative volume limit is a combined limit of drilling fluid volumes from both Platforms Ellen and Ely, as listed in the permit.
5. A-33 drilling activities began in December, however there were no associated discharges.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Drilling Fluids and Cuttings  
 External Outfall

No Discharge  C

CAF001147	001A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
12/01/2014	12/31/2014

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Drilling cuttings, volume	PERMIT REQUIREMENT	*****		*****	*****	*****				
82596 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	Req. Mon. DAILY MIX	*****	*****	*****		Daily	ESTIMA	
Drilling cuttings, volume	PERMIT REQUIREMENT	*****	320	*****	*****	*****	0	Annual	Calctd	
82596 EG 0 Effluent Gross	SAMPLE MEASUREMENT	*****	18150 YTD TOT	*****	*****	*****		Annual	CALCTD	
LC50 Static 96Hr Acute Mysid. Bahi	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Contingent	GRAB	
TAB3E 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
LC50 Static 96Hr Acute Mysid. Bahi	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
TAB3E EG 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
LC50 Static 96Hr Acute Mysid. Bahi	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
TAB3E O 0 See Comments	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b> Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who managed the gathering and evaluation of the information, and based on the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	M. Robertson Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	<b>TELEPHONE</b> (562) 628 1526	<b>DATE</b> 01 22 2015
			AREA Code NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

1. Drilling fluid and cutting, free oil refers to free oil static sheen test.
2. Drilling fluids & Drill Cuttings annual cumulative volume from Mar 1st thru Feb 28th each year.
3. Drill fluid inventory refer to referenced Attachment, when applicable.
4. The total annual cumulative volume limit is a combined limit of drilling fluid volumes from both Platforms Ellen and ELLY, as listed in the permit.
5. A-33 drilling activities began in December, however there were no associated discharges.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG2800000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Produced Water Monthly  
 External Outfall

No Discharge  A

CAF001147	002A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
12/01/2014	12/31/2014

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING		QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	UNITS			
Oil and grease, hexane extr method	PERMIT REQUIREMENT	*****	*****	*****					
00552 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	29 MO AVG	42 DAILY MX	mg/L		Weekly	GRAB
Produced water, flow	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****			
82600 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Daily	ESTIMA

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Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED		(562) 628 1526 AREA Code NUMBER	01 22 2015
		M. Robertson Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

1. Elyly-only platform capable of discharging PW. All produced water is sent to Elyly for processing (refer to Plat Elyly DMR)
2. PW annual cumulative flow from Mar 1st thru Feb 28th each year
3. If PW is discharged, 12 mo of monitoring is required for RP analysis.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

**DMR Mailing ZIP CODE:** 90802  
**MINOR**  
 (SUBR FW)  
 Well Treatment, Completion and Workover Fluid  
 External Outfall

No Discharge **A**

CAF001147	003A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
12/01/2014	12/31/2014

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Well fluids, oil & grease	PERMIT REQUIREMENT	*****	*****	*****	*****					
04379 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	29 MO AVG	42 DAILY MX	mg/L		Once per Occurrence	GRAB	
Number of Events	PERMIT REQUIREMENT	*****	#	*****	*****	*****		Once per Occurrence	CALCTD	
51484 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****		Once per Occurrence	GRAB	
Well fluids, free oil	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Once per Occurrence	GRAB	
82603 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****		Once per Occurrence	ESTIMA	
Well fluids, volume	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Once per Occurrence	ESTIMA	
82604 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****		Once per Occurrence	ESTIMA	

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) who prepared the information and my review of the information submitted, I believe the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.		<b>TELEPHONE</b>	<b>DATE</b>
Jim Guion Executive Vice President, Chief Operating Officer	 Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		(562) 628 1526	01 22 2015
TYPED OR PRINTED			AREA Code	NUMBER

**COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)**

1. Type and # of Job: Completion, workover, treatment or combination.
2. Free Oil Static Sheen Test.
3. Chemical Inventory, refer to Attachment referenced when applicable.
4. When present, all WTCWF are commingled with production and sent to Platform Ely (refer to Plat Ely DMR).

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
OK 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Deck Drainage  
 External Outfall

No Discharge **A**

CAF001147 <b>PERMIT NUMBER</b>	004A-A <b>DISCHARGE NUMBER</b>
MM/DD/YYYY 12/01/2014	MM/DD/YYYY 12/31/2014

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Flow rate, deck drainage		*****		*****	*****	*****			Monthly	Estima
51666 1 0 Effluent Gross	PERMIT REQUIREMENT	*****		*****	*****	*****			Monthly	ESTIMA
Free Oil Visual Sheen	SAMPLE MEASUREMENT	*****	bb/d	*****	*****	*****				
51689 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Req. Mon. MO TOTAL	Daily	VISUAL

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b> Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED	<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>  Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	<b>TELEPHONE</b> (562) 628 1526 AREA Code NUMBER	<b>DATE</b> 01 22 2015 MM/DD/YYYY
---	---	--	---

**COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)**

1. Free Oil Sheen - # days observed
2. Deck Drainage is commingled with Produced Water and treated at Platform Elly (refer to Pit Elly DMR).

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

CAF001147	005A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
12/01/2014	12/31/2014

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Domestic and Sanitary Waste  
 External Outfall

No Discharge

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Flow rate, domestic	MEASUREMENT	NODI (A)	*****	*****	*****	*****	*****			
51667 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. MO AVG	*****	*****	*****	*****	*****	Monthly	ESTIMA	
Sanitary waste, residual chlorine	MEASUREMENT	*****	*****	*****	NODI (9)	NODI (9)	*****			
82605 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	1 MINIMUM	10 MAXIMUM	*****	Monthly	GRAB	
Sanitary waste, flow	MEASUREMENT	75	*****	*****	*****	*****	*****	Monthly	Estima	
82606 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. MO AVG	*****	*****	*****	*****	*****	Monthly	ESTIMA	
Sanitary waste, solids	MEASUREMENT	*****	0	*****	*****	*****	*****	Daily	Visual	
82607 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	Req. Mon. MO AVG	*****	*****	*****	*****	Daily	VISUAL	
Domestic waste, foam and floating solids	MEASUREMENT	*****	NODI (A)	*****	*****	*****	*****			
82608 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	Req. Mon. MO TOTAL	*****	*****	*****	*****	Daily	VISUAL	

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	 Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	<b>TELEPHONE</b>	<b>DATE</b>
Executive Vice President, Chief Operating Officer TYPED OR PRINTED		(562) 628 1526 AREA Code NUMBER	01 22 2015

**COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)**

- Domestic Waste is commingled with produced water at Platform Elly.
- The sewage treatment unit is a marine sanitation device that complies with pollution control standards and regulations under Section 312 of the Clean Water Act. Thus, it is deemed to be in compliance with permit limitations for sanitary waste chlorine discharges

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

CAF001147	006A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
12/01/2014	12/31/2014

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Blowout Preventer Fluid  
 External Outfall

No Discharge  C

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Free Oil Visual Sheen	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
51689 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	
Floating solids or visible foam-visual/days	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
51705 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	<b>TELEPHONE</b>	<b>DATE</b>
Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED		(562) 628 1526 AREA Code NUMBER	01 22 2015
<b>SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT</b>			
 Marina Robertson, HSE Manager AUTHORIZED AGENT			

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME: BETA OFFSHORE PLATFORM ELLEN - CAG280000  
ADDRESS: 111 West Ocean Blvd., Suite 1240  
LONG BEACH, CA 90802  
FACILITY: PLATFORM ELLEN  
LOCATION: LAT 33 34 56.52N LO 118 07 41.6W  
PACIFIC OCEAN, CA 90802  
ATTN: Marina Robertson

CAF001147	007A-A
PERMIT NUMBER	DISCHARGE NUMBER
MM/DD/YYYY	MM/DD/YYYY
12/01/2014	12/31/2014
MONITORING PERIOD	

DMR Mailing ZIP CODE: 90802  
MINOR (SUBR FW)  
Desalination Unit Discharge  
External Outfall

No Discharge  C

PARAMETER	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Floating solids or visible foam-visual/days	*****	*****	*****	*****					
51705 RW 0 Receiving Water	*****	*****	*****	*****	d	Req. Mon. MO TOTAL	Daily	VISUAL	

NAME/TITLE	PRINCIPAL EXECUTIVE OFFICER	TELEPHONE	DATE
Jim Guion		(562) 628 1526	01 22 2015
Executive Vice President, Chief Operating Officer		AREA Code NUMBER	MM/DD/YYYY
TYPED OR PRINTED			
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT			
 Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT			

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that certified persons who prepare this information are fully qualified to perform the duties of the position they hold, and that they are aware of their obligations and liabilities under applicable law to provide true, accurate, and complete information to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME: BETA OFFSHORE PLATFORM ELLEN - CAG280000  
ADDRESS: 111 West Ocean Blvd., Suite 1240  
LONG BEACH, CA 90802  
FACILITY: PLATFORM ELLEN  
LOCATION: LAT 33 34 56.52N LO 118 07 41.6W  
PACIFIC OCEAN, CA 90802  
ATTN: Marina Robertson

CAF001147	008A-A
PERMIT NUMBER	DISCHARGE NUMBER
MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
12/01/2014	12/31/2014

DMR Mailing ZIP CODE: 90802  
MINOR (SUBR FW)  
Fire Control System Water  
External Outfall

No Discharge  A

PARAMETER	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Floating solids or visible foam-visual/days	*****	*****	*****	*****	*****	*****			
51705 RW 0 Receiving Water	*****	*****	*****	*****	*****	*****		Daily	VISUAL
						Req. Mon. MO TOTAL			

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Each person who provides information to this report is responsible for the accuracy and completeness of the information submitted and for any violations of environmental laws or regulations. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	TELEPHONE	DATE
Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED	(562) 628 1526 AREA Code NUMBER	01 22 2015 MM/DD/YYYY
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		
 Marina Robertson, HSE Manager		

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

1. Chemical Inventory, refer to Attachment 2
2. Fire Control System Water is commingled with Produced Water at Platform Elly.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802

ATTN: Marina Robertson

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Non-Contact Cooling Water  
 External Outfall

No Discharge

CAF001147	009A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
MM/DD/YYYY	MM/DD/YYYY
12/01/2014	12/31/2014
<b>MONITORING PERIOD</b>	

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Chlorine, total residual	PERMIT REQUIREMENT	*****	*****	*****	NODI (9)	NODI (9)				
50060 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	.000583 MO AVG	.0104 DAILY MX		Quarterly	GRAB	
Floating solids or visible foam-visual/days	SAMPLE MEASUREMENT	*****	*****	*****	*****	0	0	Daily	Visual	
51705 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. MO TOTAL		Daily	VISUAL	
Flow	SAMPLE MEASUREMENT	36,000	bb/d	*****	*****	*****	0	Monthly	Estima	
74076 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. MO AVG	bb/d	*****	*****	*****		Monthly	ESTIMA	

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	<b>TELEPHONE</b>	<b>DATE</b>
Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED		(562) 628 1526 AREA Code NUMBER	01 22 2015
<b>SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT</b>			
 Marina Robertson, HSE Manager			

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

1. Chemical Inventory, refer to Attachment 2.
2. Uncontaminated Water, such as excess seawater, is commingled with non-contact cooling water
3. Chlorine values are reported post-dilution per EPA Plumes UM, if applicable.

4. NODI(9): Quarterly/not required this month.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802

ATTN: Marina Robertson

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Ballast and Storage Displacement Water  
 External Outfall

No Discharge  C

CAF001147	010A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
12/01/2014	12/31/2014

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Free Oil Visual Sheen	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
51689 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
Floating solids or visible foam-visual/days	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****			Daily	VISUAL
51705 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
Flow	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
74076 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. MO AVG	*****	*****	*****	*****			Monthly	ESTIMA

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	 Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	<b>TELEPHONE</b>	<b>DATE</b>
Jim Guion		(562) 628 1526	01 22 2015
Executive Vice President, Chief Operating Officer TYPED OR PRINTED		AREA Code NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG2800000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

CAF001147	011A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
12/01/2014	12/31/2014

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Bilge Water  
 External Outfall

No Discharge  C

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Free Oil Visual Sheen	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
51689 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
Floating solids or visible foam-visual/days	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****			Daily	VISUAL
51705 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
Flow	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
74076 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. MO AVG	*****	*****	*****	*****			Monthly	ESTIMA

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b> Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information. Based on my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	(562) 628 1526 AREA Code NUMBER	01 22 2015 MM/DD/YYYY
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT  Marina Robertson, HSE Manager			

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Boiler Blowdown  
 External Outfall

No Discharge  C

CAF001147	012A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
12/01/2014	12/31/2014

PARAMETER	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Floating solids or visible foam-visual/days	*****	*****	*****	*****					
51705 RW 0 Receiving Water	*****	*****	*****	*****	d	Req. Mon. MO TOTAL	Daily	VISUAL	

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who furnished the information, and to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.		<b>TELEPHONE</b>	<b>DATE</b>
Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED	 Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	(562) 628 1526	01 22 2015	
		AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG2800000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Test Fluids  
 External Outfall

No Discharge  C

CAF001147	013A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
12/01/2014	12/31/2014

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Free Oil Visual Sheen	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
51689 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
Floating solids or visible foam-visual/days	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	
51705 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
Flow	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	
74076 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Monthly	ESTIMA	

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b> Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who prepared this information, and my review of the information submitted, I believe the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	M. Robertson Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	<b>TELEPHONE</b> (562) 628 1526	<b>DATE</b> 01 22 2015
			AREA Code NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

- Chemical Inventory, refer to Attachment 2.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
**DISCHARGE MONITORING REPORT (DMR)**

Form Approved  
 ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG2800000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

CAF001147	014A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
12/01/2014	12/31/2014

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Diatomaceous Earth Filter Media  
 External Outfall

No Discharge  C

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Free Oil Visual Sheen	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
51689 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
Floating solids or visible foam-visual/days	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	
51705 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
								Daily	VISUAL	

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information. Based on my knowledge of the information, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	<b>TELEPHONE</b>	<b>DATE</b>
Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED		(562) 628 1526 AREA Code NUMBER	01 22 2015
<b>SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT</b>			
 Marina Robertson, HSE Manager AUTHORIZED AGENT			

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG2800000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

CAF001147	015A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
12/01/2014	12/31/2014

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Bulk Transfer Material Overflow  
 External Outfall

No Discharge

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Floating solids or visible foam-visual/days		*****	*****	*****	*****	*****	0	Daily	Visual	
51705 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	
				Req. Mon. MO TOTAL						

**NAME/TITLE PRINCIPAL EXECUTIVE OFFICER**  
 Jim Guion  
 Executive Vice President, Chief Operating Officer  
 TYPED OR PRINTED

**NAME/TITLE PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT**  
  
 Marina Robertson, HSE Manager  
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

**TELEPHONE**  
 (562) 628 1526  
 AREA Code NUMBER

**DATE**  
 01 22 2015  
 MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

**DMR Mailing ZIP CODE:** 90802  
**MINOR**  
 (SUBR FW)  
 Uncontaminated Water  
 External Outfall

No Discharge  A

CAF001147	016A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
12/01/2014	12/31/2014

PARAMETER	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Floating solids or visible foam-visual/days	*****	*****	*****	*****	*****	*****			
51705 RW 0 Receiving Water	*****	*****	*****	*****	*****	*****		Daily	VISUAL
						Req. Mon. MO TOTAL			

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b> Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who furnished the information, and to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	M. Robertson Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	<b>TELEPHONE</b> (562) 628 1526	<b>DATE</b> 01 22 2015
			AREA Code NUMBER	MM/DD/YYYY

**COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)**

1. Uncontaminated Water, such as excess seawater, is commingled with non-contact cooling water

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Water Flooding Discharges  
 External Outfall

No Discharge  C

CAF001147	017A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
12/01/2014	12/31/2014

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Free Oil Visual Sheen	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
51689 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	
Floating solids or visible foam-visual/days	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
51705 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b> Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) who prepared the information and my review of the information submitted, I believe the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	M. Robertson Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	<b>TELEPHONE</b> (562) 628 1526	<b>DATE</b> 01 22 2015
			AREA Code NUMBER	MM/DD/YYYY

**COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)**

1. Chemical Inventory, refer to Attachment 2.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG2800000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

CAF001147	018A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY 12/01/2014	MM/DD/YYYY 12/31/2014

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Laboratory Waste  
 External Outfall

No Discharge  A

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Free Oil Visual Sheen	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
51689 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	
Floating solids or visible foam-visual/days	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
51705 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	

NAME/TITLE Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT  Marina Robertson, HSE Manager	TELEPHONE (562) 628 1526	DATE 01 22 2015
		AREA Code NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

- Laboratory Waste commingled with Produced Water

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802

ATTN: Marina Robertson

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Excess Cement Slurry  
 External Outfall

No Discharge  C

CAF001147	019A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
12/01/2014	12/31/2014

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Free Oil Visual Sheen	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
51689 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. MO TOTAL	d	Daily	VISUAL	
Floating solids or visible foam-visual/days	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
51705 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. MO TOTAL	d	Daily	VISUAL	
Flow	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
74076 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Monthly	ESTIMA	
Flow	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****		Annual	Calctd	
74076 EG 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Annual	CALCTD	

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	<b>TELEPHONE</b>	<b>DATE</b>
Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED	(562) 628 1526 AREA Code NUMBER	01 22 2015 MM/DD/YYYY
 Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

1. Annual cumulative Volumes and Limits for the period covering Mar. 1 through Feb. 28th each year.
2. The total annual cumulative volume limit is a combined limit of excess cement slurry volumes from both Platforms Ellen and Eilly

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802

ATTN: Marina Robertson

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Muds, Cuttings and Cement at Sea Floor  
 External Outfall

No Discharge **C**

CAF001147	020A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
MM/DD/YYYY	MM/DD/YYYY
12/01/2014	12/31/2014
<b>MONITORING PERIOD</b>	

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Free Oil Visual Sheen	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
51689 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
Floating solids or visible foam-visual/days	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	
51705 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	

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Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED		(562) 628 1526 AREA Code NUMBER	01 22 2015
<b>SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT</b>			
 Marina Robertson, HSE Manager AUTHORIZED AGENT			

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG280000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

CAF001147	021A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
MM/DD/YYYY	MM/DD/YYYY
12/01/2014	12/31/2014
<b>MONITORING PERIOD</b>	

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 Hydrotect Water  
 External Outfall

No Discharge  C

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Chlorine, total residual	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
50060 1 0 Effluent Gross	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****		Monthly	GRAB	
Free Oil Visual Sheen	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
51689 RW 0 Receiving Water	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	
Floating solids or visible foam-visual/days	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
51705 RW 0 Receiving Water Flow	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	
74076 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. MO AVG	*****	*****	*****	*****		Monthly	ESTIMA	

<b>NAME/TITLE PRINCIPAL EXECUTIVE OFFICER</b>	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information on which this document is based. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.		<b>TELEPHONE</b>	<b>DATE</b>
Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED			(562) 628 1526 AREA Code NUMBER	01 22 2015 MM/DD/YYYY
<b>SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT</b>		 Marina Robertson, HSE Manager AUTHORIZED AGENT		

**COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)**  
 1. Chemical Inventory, refer to Attachment 2.  
 2. Submit RP analysis per permit requirement after sampling is completed.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
ON 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)  
**NAME:** BETA OFFSHORE PLATFORM ELLEN - CAG2800000  
**ADDRESS:** 111 West Ocean Blvd., Suite 1240  
 LONG BEACH, CA 90802  
**FACILITY:** PLATFORM ELLEN  
**LOCATION:** LAT 33 34 56.52N LO 118 07 41.6W  
 PACIFIC OCEAN, CA 90802  
**ATTN:** Marina Robertson

CAF001147	022A-A
<b>PERMIT NUMBER</b>	<b>DISCHARGE NUMBER</b>
<b>MONITORING PERIOD</b>	
MM/DD/YYYY	MM/DD/YYYY
12/01/2014	12/31/2014

**DMR Mailing ZIP CODE:** 90802  
 MINOR (SUBR FW)  
 H2S Gas Processing Waste Water  
 External Outfall

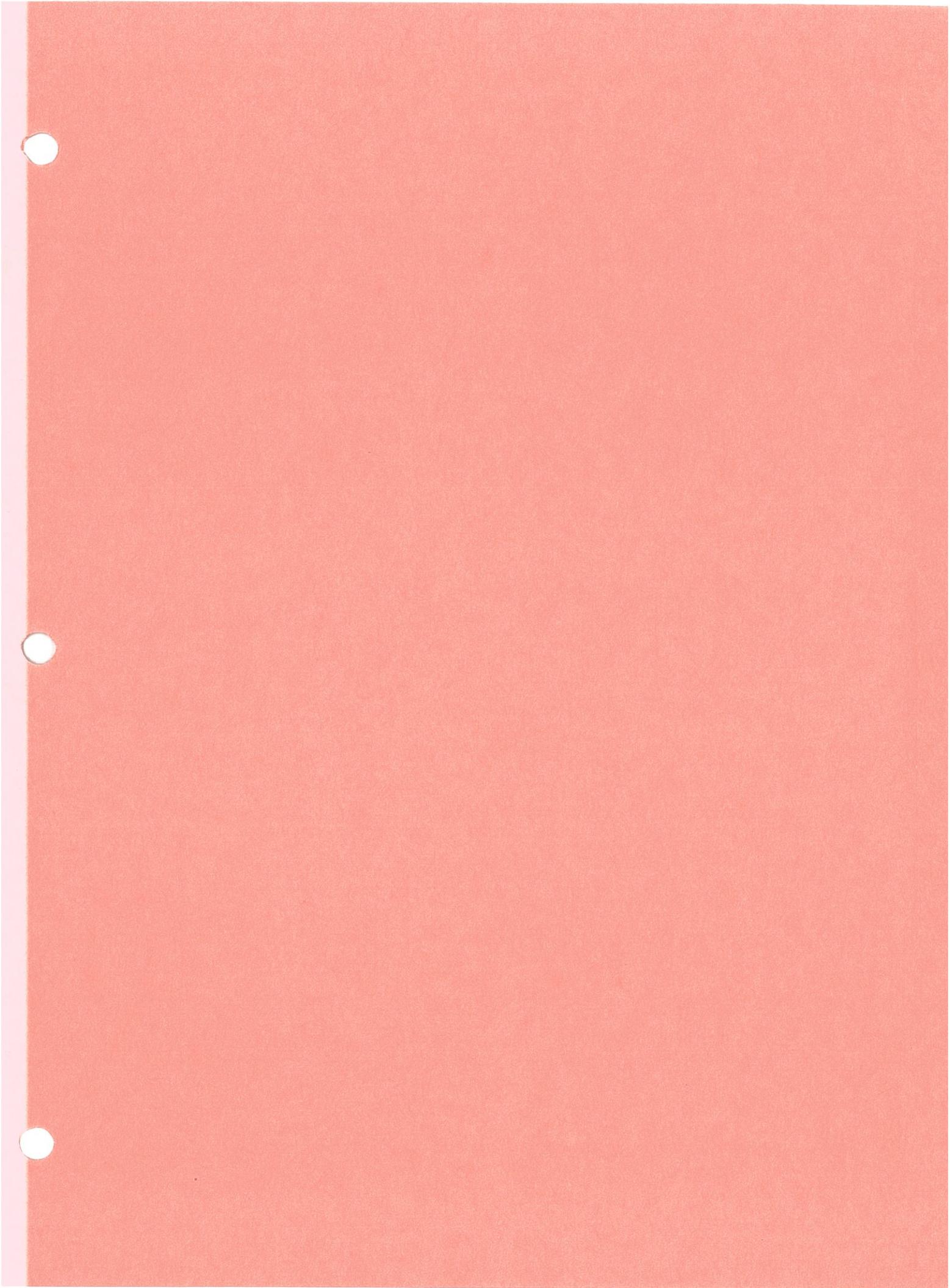
No Discharge  C

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Free Oil Visual Sheen	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
51689 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
Floating solids or visible foam-visual/days	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****		Daily	VISUAL	
51705 RW 0 Receiving Water	PERMIT REQUIREMENT	*****	*****	*****	*****	*****				
Flow	SAMPLE MEASUREMENT	*****	*****	*****	*****	*****				
74076 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. MO AVG	*****	*****	*****	*****		Monthly	ESTIMA	

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information. Based on my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

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Jim Guion Executive Vice President, Chief Operating Officer TYPED OR PRINTED	(562) 628 1526 AREA Code NUMBER	01 22 2015 MM/DD/YYYY
 Marina Robertson, HSE Manager SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)



Attachment 2

Chemical Inventory

**ATTACHMENT 2**  
**PLATFORM ELLEN**  
**MISCELLANEOUS DISCHARGES**  
**CHEMICAL INVENTORY**  
**October 1, 2014 through December 31, 2014**

<u>Fluid Type</u>	<u>Volume</u> (Monthly avg bbls per day)	<u>Product Name</u>	<u>Estimated Chemical Quantity</u> (Monthly avg gal per day)	<u>Average End-of-Pipe<sup>1</sup> Concentration</u> (mg/l)
009 Non-contact Cooling Water (combined with excess seawater)				
October	36,000	Chlorine	0.45	0.3
November	36,000	Chlorine	1.06	0.7
December	36,000	Chlorine	0.30	0.2
008 Fire Control System Water	N / A	None	None	None
013 Test Fluids	No Discharge	No Discharge	None	None
017 Water Flooding Discharges	No Discharge	No Discharge	None	None
021 Hydrotect Water	No Discharge	No Discharge	None	None

<sup>1</sup> Chemical quantity for non-contact cooling water calculated with Operations daily monitoring results using a non-EPA chlorine test method (Hach DPD Color Wheel). The chlorine concentrations are the same for Elly and Ellen since Ellen's seawater pump supplies the non-contact cooling water to Elly.

N / A: Not chlorinated

## Attachment 3

# Non-Contact Cooling Water Chlorine Residual Results

**ATTACHMENT 3  
PLATFORM ELLEN**

**NON-CONTACT COOLING WATER CHLORINE RESULTS  
October 1, 2014 through December 31, 2014**

<u>Discharge</u>	<u>Measurement Frequency</u>	<u>Average Monthly Limit</u> <sup>1</sup> (mg/l)	<u>Maximum Daily Limit</u> <sup>1</sup> (mg/l)	<u>Result Post Dilution</u> (mg/l)	<u>End-of-Pipe Concentration</u> (mg/l)	<u>EPA Plumes Dilution</u>
009 Non-contact Cooling Water Sample Date: 10/27/14	Once/Quarter	0.00583	0.0104	< 0.00033	< 0.05	149:1

EPA Method 330.5

<sup>1</sup> Limits are post-dilution as listed in the permit, Appendix C.

## Attachment 4

# Prohibited Discharges

**ATTACHMENT 4**  
**PLATFORM ELLEN**  
**Prohibited Discharges**  
**October 1, 2014 through December 31, 2014**

<u>Prohibited Discharge</u>	<u>Permit Requirement/Limit</u>	<u>Monitoring Results</u>
Free Oil <sup>1</sup>	0 days sheen observed on the receiving water during daylight hours	0 Days
Foam <sup>1</sup>	0 days foam observed on the receiving water during daylight hours	0 Days
Floating Solids <sup>1</sup>	0 days solids observed on the receiving water during daylight hours	0 Days
Surfactants <sup>2</sup>	Minimize	Minimized
Detergents <sup>2</sup>	Minimize	Minimized
Dispersants <sup>2</sup>	Minimize	Minimized
Produced Sands <sup>3</sup>	No Discharge	No Discharge
Halogenated Phenol Compounds <sup>4</sup>	No Discharge	No Discharge
Chrome Lignosulfonate <sup>4</sup>	No Discharge	No Discharge
Tracer Materials <sup>5</sup>	Limited	Limited
Garbage <sup>6</sup>	No Discharge	No Discharge

<sup>1</sup> Free Oil, Foam, and Floating Solids: Monitoring by visual observation of the surface of the receiving water in the vicinity of the outfalls shall be conducted during daylight hours.

<sup>2</sup> The discharge of surfactants, dispersants, and detergents shall be minimized except as necessary to comply with safety requirements of the Occupational Health and Safety Administration and BSEE. The discharge to marine waters in response to oil or other hazardous spills is not authorized.

<sup>3</sup> There shall be no discharge of produced sands.

<sup>4</sup> Other Toxic and Non-conventional Compounds: There shall be no discharge of diesel oil, halogenated phenol compounds, or chrome lignosulfonate. Diesel oil discharge information will be located under the Drilling Inventory attachment when applicable.

<sup>5</sup> Radioactive tracer concentration above the background in the parent, discharge waste stream shall be limited in 10 CFR 20 Appendix B, Table II, Column 2, Effluent Concentrations, Water.

<sup>6</sup> The discharge of garbage is prohibited.

Attachment 5

Laboratory reports for NPDES  
monitoring

Laboratory Quality Control Reports



**LTS ENVIRONMENTAL, INC.**

Beta Offshore  
111 W. Ocean Blvd., Suite 1240  
Long Beach, Ca 90802

October 28, 2014

**Attn: Marina Robertson**

Quarterly NPDES chlorine residuals on the non-contact cooling water outlet were as follows:

<b>Sample Date / Time</b>	<b>Location</b>	<b>Total Chlorine Residual (EPA Method 330.5) <u>End of Pipe</u></b>
October 27, 2014 @ 1300 hrs	Platform Elly / Ellen Non-Contact Cooling Water Outlet East Seawater Pump	< 0.05 mg/l
LTS Meter S/N: 12040E195572 Technician: Cole Jenkins		Method Blank < 0.05 mg/l (MDL)

**S.G. Lawry**  
**Environmental Specialist / LTS**



LTS ENVIRONMENTAL, INC.

September 8, 2014

**Quality Control**

As part of the annual in-house quality control chlorine meter check and to ensure proper operation of the meters, LTS Environmental performed a total residual chlorine test with a known value obtained from RT Corporation. Results of this test are as follows:

<b>Test Date</b> September 5, 2014	<b>Total Residual Chlorine</b> <i>(EPA Method 330.5)</i>
LTS meter (SN 041200088375)	<b>0.57 mg/l</b>
LTS meter (SN 12040E195572)	<b>0.52 mg/l</b>
RT Corporation test sample: (Lot #QC1065-021081)	
<b>Acceptance Limits</b>	<b>0.481 – 0.835 mg/l</b>
Certified Value	0.658 mg/l $\pm$ 0.0110
	Method Blank < 0.05 mg/l
LTS Lead Technician: Mike Apple	

**S.G. Lawry**  
*Environmental Specialist*  
*President, LTS*



October 22, 2014

Ms. Marina Robertson  
Beta Offshore  
111 W. Ocean Blvd. #1240  
Long Beach, CA 90802

Dear Ms. Robertson:

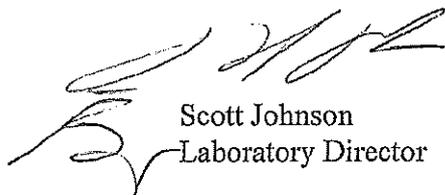
We are pleased to present the enclosed drilling mud bioassay report. The test was conducted under guidelines prescribed in *Federal Register/ Vol. 58, No. 41/ Thursday, March 04, 1993/ Rules and Regulations* as provided to us by the US Environmental Protection Agency. Results were as follows:

**Mysid Shrimp (*Mysidopsis bahia*) Bioassay**

CLIENT: Beta Offshore  
SAMPLE I.D.: Platform Ellen Drilling Well #A-23-ST-1, Polytek  
DATE RECEIVED: 14 October 2014  
ABC LAB #: LTS1014.104

96 hr. LC50 = >10.0%

Yours very truly,



Scott Johnson  
Laboratory Director

**Mysid Survival Test-96 Hr Survival**

Start Date: 10/15/2014	Test ID: LTS1014104	Sample ID: CA0000000
End Date: 10/19/2014	Lab ID: CAABC	Sample Type: Drill Mud
Sample Date: 10/13/2014	Protocol: EPAM 87-EPA Marine	Test Species: MY-Mysidopsis bahia
Comments: Platform Ellen Well number A-23 ST-1 Polytech, composite		

Conc-%	1	2	3
N Control	1.0000	1.0000	1.0000
1	0.9000	0.9500	0.7500
1.8	0.9500	0.9500	1.0000
3.2	0.9500	0.9500	1.0000
5.6	0.9500	0.9500	1.0000
10	0.9500	0.8500	1.0000

Conc-%	Transform: Arcsin Square Root							1-Tailed			Isotonic	
	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD	Mean	N-Mean
N Control	1.0000	1.0000	1.4588	1.4588	1.4588	0.000	3				1.0000	1.0000
*1	0.8667	0.8667	1.2138	1.0472	1.3453	12.533	3	3.085	2.500	0.1984	0.9417	0.9417
1.8	0.9667	0.9667	1.3831	1.3453	1.4588	4.737	3	0.953	2.500	0.1984	0.9417	0.9417
3.2	0.9667	0.9667	1.3831	1.3453	1.4588	4.737	3	0.953	2.500	0.1984	0.9417	0.9417
5.6	0.9667	0.9667	1.3831	1.3453	1.4588	4.737	3	0.953	2.500	0.1984	0.9417	0.9417
10	0.9333	0.9333	1.3257	1.1731	1.4588	10.849	3	1.676	2.500	0.1984	0.9333	0.9333

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.92693	0.858	-0.3074	0.22515

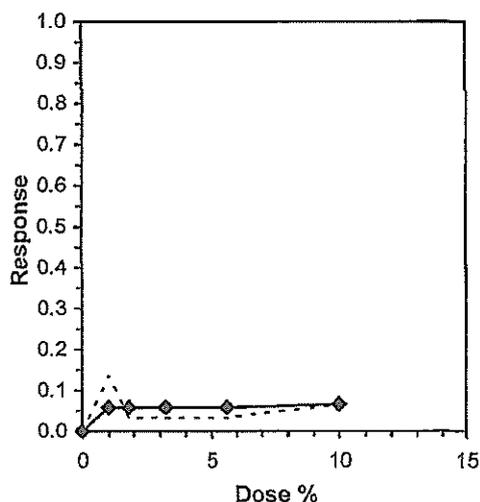
Equality of variance cannot be confirmed

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	10	>10		10	0.08084	0.08186	0.02032	0.00945	0.12874	5, 12

Treatments vs N Control

Linear Interpolation (200 Resamples)				
Point	%	SD	95% CL(Exp)	Skew
IC05*	0.8571			
IC10	>10			
IC15	>10			
IC20	>10			
IC25	>10			
IC40	>10			
IC50	>10			

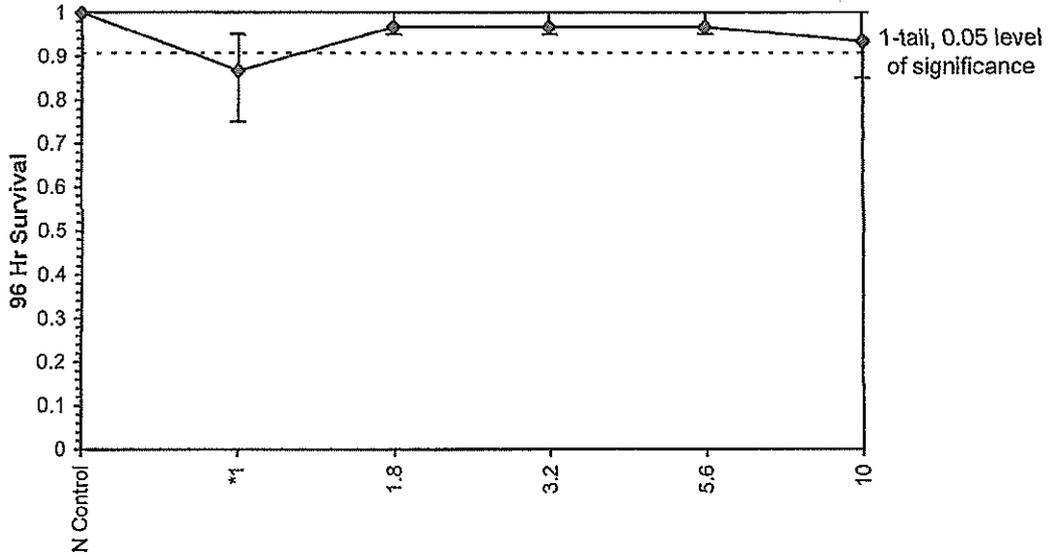
\* indicates IC estimate less than the lowest concentration



Mysid Survival Test-96 Hr Survival

Start Date: 10/15/2014	Test ID: LTS1014104	Sample ID: CA0000000
End Date: 10/19/2014	Lab ID: CAABC	Sample Type: Drill Mud
Sample Date: 10/13/2014	Protocol: EPAM 87-EPA Marine	Test Species: MY-Mysidopsis bahia
Comments: Platform Ellen Well number A-23 ST-1 Polytech, composite		

Dose-Response Plot



**Mysid Survival Test-96 Hr Survival**

Start Date: 10/15/2014	Test ID: LTS1014104	Sample ID: CA0000000
End Date: 10/19/2014	Lab ID: CAABC	Sample Type: Drill Mud
Sample Date: 10/13/2014	Protocol: EPAM 87-EPA Marine	Test Species: MY-Mysidopsis bahia
Comments: Platform Ellen Well number A-23 ST-1 Polytech, composite		

**Auxiliary Data Summary**

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	20.25	20.00	20.50	0.35	2.94	2
1		20.10	19.90	20.30	0.28	2.65	2
1.8		20.25	20.10	20.40	0.21	2.27	2
3.2		21.70	20.40	23.00	1.84	6.25	2
5.6		20.20	20.00	20.40	0.28	2.63	2
10		20.20	20.00	20.40	0.28	2.63	2
N Control	pH	7.80	7.80	7.80	0.00	0.00	2
1		7.75	7.70	7.80	0.07	3.43	2
1.8		7.75	7.70	7.80	0.07	3.43	2
3.2		7.70	7.70	7.70	0.00	0.00	2
5.6		7.70	7.70	7.70	0.00	0.00	2
10		7.70	7.70	7.70	0.00	0.00	2
N Control	DO mg/L	7.35	7.20	7.50	0.21	6.27	2
1		7.20	7.10	7.30	0.14	5.22	2
1.8		7.20	7.10	7.30	0.14	5.22	2
3.2		7.50	7.30	7.70	0.28	7.09	2
5.6		7.25	7.20	7.30	0.07	3.67	2
10		7.20	7.20	7.20	0.00	0.00	2
N Control	Salinity ppt	25.00	25.00	25.00	0.00	0.00	2
1		25.00	25.00	25.00	0.00	0.00	2
1.8		25.00	25.00	25.00	0.00	0.00	2
3.2		25.00	25.00	25.00	0.00	0.00	2
5.6		25.00	25.00	25.00	0.00	0.00	2
10		25.00	25.00	25.00	0.00	0.00	2

**LTS Environmental, Inc.**  
 704 Adirondack Avenue  
 Ventura, CA 93003  
 805-644-4560

**Report to:** Beta Offshore-Marina Robertson  
 111 W. Ocean Blvd #1240  
 Long Beach, Ca 90802

**Bill to:** Beta Offshore-Marina Rot  
 111 W. Ocean Blvd #1240  
 Long Beach, Ca 90802

**FACILITY:** Rig #1 Ellen  
**COLLECTOR:** Bud Coleman  
**PROJECT/CHARGE #:** Drilling Mud Well # A-23 ST-1  
**RESULTS REQUIRED:** normal  
**RESULTS BY: PHONE:** 0-80%  
**FAX:**

**SUBMITTED TO:** ABC Lab  
**REPORT TO:** Marina Robertson  
**COPIES TO:** S. Lawry  
**PHONE:** 714-309-9481  
**FAX:**  
**Ops. Supervisor** **PHONE:**

SAMPLE NO.	SAMPLE ID/LOCATION	GRAB/COMP.	VOLUME	DATE/TIME COLLECTED	PRESERV.	ANALYSES REQUESTED (METHOD)
1	Well #: A-23 ST-1 Mud Type: PolyTek	grab	1 Pint	10-12-14 16:30	ice	Mysidopsis bahia LC 50 (96 hour)
2	well # A-23 ST-1 Mud Type: PolyTek	grab	1 Pint	10-12-14 17:30	ice	COMPOSITE THE TARGET
3	well # A-23 ST-1 MUD TYPE: POLYTEK	GRAB	1 PINT	10/13/14 03:30	ICE	SAMPLES PRIOR TO TESTING

Comments: Indicate Well Footage: Sample #1 18721-22451 Sample #2 18721-22821 Sample #3 22821-22561

Relinquished by: Bud Coleman  
 Received by: M. Robertson  
 Date: 10.13.14  
 Time: 10:45

Relinquished by:  
 Received by: (Signature)  
 Date: 10-14-14  
 Time: 10:07

Relinquished by: (Signature)  
 Received by: X  
 Date: 10-13-14  
 Time: 5:00 PM

Relinquished by:  
 Received by:  
 Date:  
 Time:



*Mysidopsis bahia* Acute Survival Bioassay

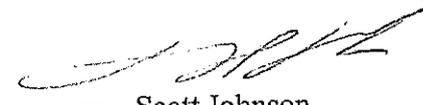
DATE: 15 October 2014

STANDARD TOXICANT: Sodium dodecyl sulfate

ENDPOINT: SURVIVAL

IC25 = 13.20 mg/l  
IC50 = 16.63 mg/l

Yours very truly,



Scott Johnson  
Laboratory Director

**Mysid Survival Test-96 Hr Survival**

Start Date: 10/15/2014	Test ID: MYS101514D	Sample ID: CA0000000
End Date: 10/19/2014	Lab ID: CAABC	Sample Type: SDS-Sodium dodecyl sulfate
Sample Date: 10/15/2014	Protocol: EPAM 87-EPA Marine	Test Species: MY-Mysidopsis bahia
Comments: Standard Toxicant Drill Mud		

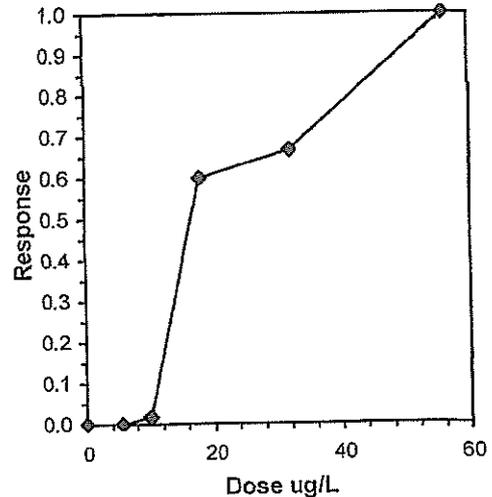
Conc-ug/L	1	2	3
N Control	1.0000	1.0000	1.0000
5.6	1.0000	1.0000	1.0000
10	1.0000	1.0000	0.9500
18	0.4500	0.3500	0.4000
32	0.3000	0.3000	0.4000
56	0.0000	0.0000	0.0000

Conc-ug/L	Transform: Arcsin Square Root							1-Tailed		Isotonic		
	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD	Mean	N-Mean
N Control	1.0000	1.0000	1.4588	1.4588	1.4588	0.000	3				1.0000	1.0000
5.6	1.0000	1.0000	1.4588	1.4588	1.4588	0.000	3	0.000	2.500	0.0857	1.0000	1.0000
10	0.9833	0.9833	1.4209	1.3453	1.4588	4.611	3	1.103	2.500	0.0857	0.9833	0.9833
*18	0.4000	0.4000	0.6844	0.6331	0.7353	7.472	3	22.578	2.500	0.0857	0.4000	0.4000
*32	0.3333	0.3333	0.6147	0.5796	0.6847	9.870	3	24.610	2.500	0.0857	0.3333	0.3333
*56	0.0000	0.0000	0.1120	0.1120	0.1120	0.000	3	39.265	2.500	0.0857	0.0000	0.0000

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.89781	0.858	-0.1049	0.5808						
Equality of variance cannot be confirmed										
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnnett's Test	10	18	13.4164		0.02611	0.02644	0.97454	0.00176	9.6E-14	5, 12
Treatments vs N Control										

**Linear Interpolation (200 Resamples)**

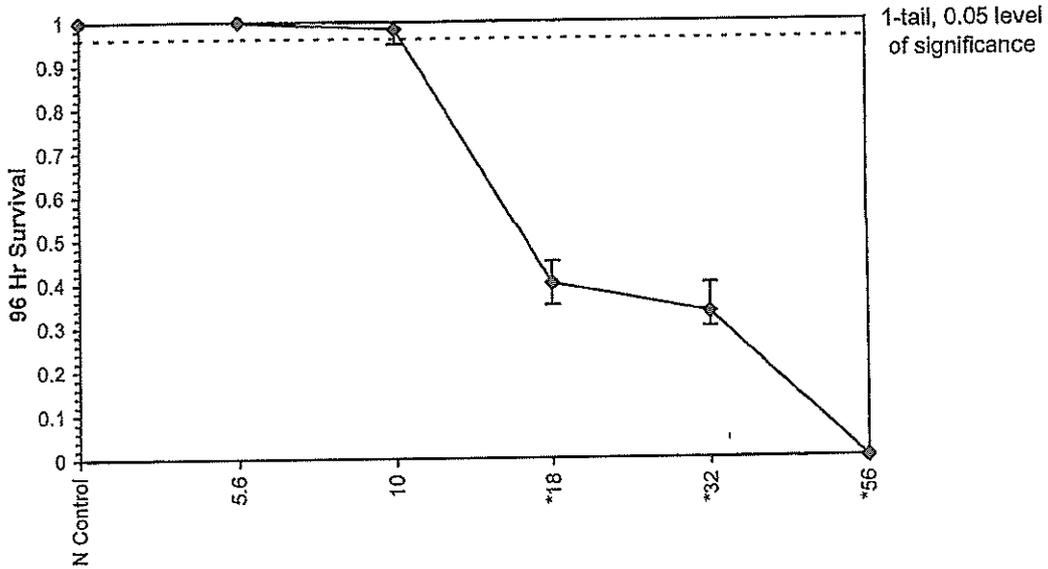
Point	ug/L	SD	95% CL(Exp)		Skew
IC05	10.457	0.182	9.497	10.979	-0.3970
IC10	11.143	0.171	10.317	11.708	-0.3113
IC15	11.829	0.167	11.136	12.436	-0.1754
IC20	12.514	0.169	11.837	13.164	-0.0143
IC25	13.200	0.177	12.547	13.892	0.1326
IC40	15.257	0.230	14.481	16.292	0.3410
IC50	16.629	0.280	15.632	17.934	0.3617



Mysid Survival Test-96 Hr Survival

Start Date: 10/15/2014      Test ID: MYS101514D      Sample ID: CA0000000  
End Date: 10/19/2014      Lab ID: CAABC      Sample Type: SDS-Sodium dodecyl sulfate  
Sample Date: 10/15/2014      Protocol: EPAM 87-EPA Marine      Test Species: MY-Mysidopsis bahia  
Comments: Standard Toxicant Drill Mud

Dose-Response Plot



**Mysid Survival Test-96 Hr Survival**

Start Date: 10/15/2014	Test ID: MYS101514D	Sample ID: CA0000000
End Date: 10/19/2014	Lab ID: CAABC	Sample Type: SDS-Sodium dodecyl sulfate
Sample Date: 10/15/2014	Protocol: EPAM 87-EPA Marine	Test Species: MY-Mysidopsis bahia
Comments: Standard Toxicant Drill Mud		

**Auxiliary Data Summary**

Conc-ug/L	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	20.25	20.00	20.50	0.35	2.94	2
5.6		20.20	20.00	20.40	0.28	2.63	2
10		20.30	20.10	20.50	0.28	2.62	2
18		20.35	20.10	20.60	0.35	2.92	2
32		20.40	20.10	20.70	0.42	3.19	2
56		20.35	20.00	20.70	0.49	3.46	2
N Control	pH	7.80	7.80	7.80	0.00	0.00	2
5.6		7.70	7.70	7.70	0.00	0.00	2
10		7.65	7.60	7.70	0.07	3.48	2
18		7.65	7.60	7.70	0.07	3.48	2
32		7.55	7.50	7.60	0.07	3.52	2
56		7.50	7.50	7.50	0.00	0.00	2
N Control	DO mg/L	7.35	7.20	7.50	0.21	6.27	2
5.6		7.20	7.10	7.30	0.14	5.22	2
10		7.25	7.00	7.50	0.35	8.20	2
18		7.30	7.20	7.40	0.14	5.15	2
32		7.25	7.20	7.30	0.07	3.67	2
56		7.25	7.20	7.30	0.07	3.67	2
N Control	Salinity ppt	25.00	25.00	25.00	0.00	0.00	2
5.6		25.00	25.00	25.00	0.00	0.00	2
10		25.00	25.00	25.00	0.00	0.00	2
18		25.00	25.00	25.00	0.00	0.00	2
32		25.00	25.00	25.00	0.00	0.00	2
56		25.00	25.00	25.00	0.00	0.00	2



January 16, 2015

Ms. Marina Robertson  
Beta Offshore  
111 W Ocean Blvd., Suite 1240  
Long Beach, CA 90802

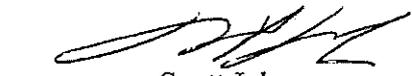
Dear Ms. Robertson:

The red abalone that we secured for this sampling event failed to spawn. Therefore there will not be any associated chronic red abalone test results.

Please feel free to contact me at your convenience if you have any questions.

CLIENT:	Beta Offshore
SAMPLE I.D.:	Platform Elly Inj. Water
DATE RECEIVED:	15 Dec - 14
ABC LAB. NO.:	LTS1214.209

Yours very truly,



Scott Johnson  
Laboratory Director



January 16, 2015

Ms. Marina Robertson  
Beta Offshore  
111 W Ocean Blvd., Suite 1240  
Long Beach, CA 90802

Dear Ms. Robertson:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms EPA/600/R-95-136, 1995*. Results were as follows:

CLIENT: Beta Offshore  
SAMPLE I.D.: Platform Elly Inj. Water  
DATE RECEIVED: 15 Dec - 14  
ABC LAB. NO.: LTS1214.209

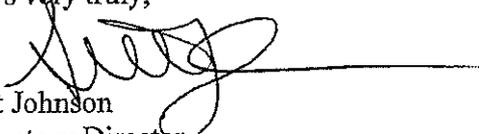
**CHRONIC TOPSMELT SURVIVAL & GROWTH BIOASSAY**

IWC CONCENTRATION = 0.0714%

**TST RESULT**

SURVIVAL	PASS
GROWTH	PASS

Yours very truly,

  
Scott Johnson  
Laboratory Director

**CETIS Summary Report**

Report Date: 09 Jan-15 16:56 (p 1 of 2)  
 Test Code: LTS1214.209tops | 14-1085-0857

**Pacific Topsmelt 7-d Survival and Growth Test**

Aquatic Bioassay & Consulting Labs, Inc.

Batch ID: 15-9305-8039	Test Type: Growth-Survival (7d)	Analyst:
Start Date: 16 Dec-14 17:55	Protocol: EPA/600/R-95/136 (1995)	Diluent: Laboratory Seawater
Ending Date: 23 Dec-14 15:55	Species: Atherinops affinis	Brine: Not Applicable
Duration: 6d 22h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 00-4803-8803	Code: LTS1214.209t	Client: LTS Environmental, Inc.
Sample Date: 15 Dec-14 07:00	Material: Sample Water	Project: Pl. Elly Inj. Water Annual Tox
Receive Date: 15 Dec-14 14:20	Source: Bioassay Report	
Sample Age: 35h (17.9 °C)	Station: Pl. Elly Inj. Water	

**Comparison Summary**

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
11-8359-1342	7d Survival Rate	0.1071	>0.1071	NA	8.76%	933.7	Steel Many-One Rank Sum Test
11-2667-0448	Mean Dry Biomass-mg	0.1071	>0.1071	NA	17.6%	933.7	Dunnett Multiple Comparison Test

**Point Estimate Summary**

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
08-8420-2441	7d Survival Rate	EC5	>0.1071	N/A	N/A	<933.7	Linear Interpolation (ICPIN)
		EC10	>0.1071	N/A	N/A	<933.7	
		EC15	>0.1071	N/A	N/A	<933.7	
		EC20	>0.1071	N/A	N/A	<933.7	
		EC25	>0.1071	N/A	N/A	<933.7	
		EC40	>0.1071	N/A	N/A	<933.7	
		EC50	>0.1071	N/A	N/A	<933.7	
19-7750-7203	Mean Dry Biomass-mg	IC5	>0.1071	N/A	N/A	<933.7	Linear Interpolation (ICPIN)
		IC10	>0.1071	N/A	N/A	<933.7	
		IC15	>0.1071	N/A	N/A	<933.7	
		IC20	>0.1071	N/A	N/A	<933.7	
		IC25	>0.1071	N/A	N/A	<933.7	
		IC40	>0.1071	N/A	N/A	<933.7	
		IC50	>0.1071	N/A	N/A	<933.7	

**Test Acceptability**

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
08-8420-2441	7d Survival Rate	Control Resp	1	0.8 - NL	Yes	Passes Acceptability Criteria
11-8359-1342	7d Survival Rate	Control Resp	1	0.8 - NL	Yes	Passes Acceptability Criteria
11-2667-0448	Mean Dry Biomass-mg	Control Resp	0.8848	0.85 - NL	Yes	Passes Acceptability Criteria
19-7750-7203	Mean Dry Biomass-mg	Control Resp	0.8848	0.85 - NL	Yes	Passes Acceptability Criteria
11-8359-1342	7d Survival Rate	PMSD	0.08762	NL - 0.25	No	Passes Acceptability Criteria
11-2667-0448	Mean Dry Biomass-mg	PMSD	0.1757	NL - 0.5	No	Passes Acceptability Criteria

**7d Survival Rate Summary**

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	5	1	1	1	1	1	0	0	0.0%	0.0%
0.0357		5	1	1	1	1	1	0	0	0.0%	0.0%
0.0714		5	0.96	0.8489	1	0.8	1	0.04	0.08944	9.32%	4.0%
0.1071		5	1	1	1	1	1	0	0	0.0%	0.0%

**Mean Dry Biomass-mg Summary**

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	5	0.8848	0.8144	0.9552	0.802	0.956	0.02535	0.05669	6.41%	0.0%
0.0357		5	0.8328	0.6758	0.9898	0.672	0.978	0.05654	0.1264	15.18%	5.88%
0.0714		5	0.8664	0.7111	1.022	0.722	1.06	0.05595	0.1251	14.44%	2.08%
0.1071		5	0.9708	0.8244	1.117	0.83	1.156	0.05272	0.1179	12.14%	-9.72%

**CETIS Summary Report**

Report Date: 09 Jan-15 16:56 (p 2 of 2)  
 Test Code: LTS1214.209tops | 14-1085-0857

**Pacific Topsmelt 7-d Survival and Growth Test**

Aquatic Bioassay & Consulting Labs, Inc.

**Survival Rate Detail**

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Negative Control	1	1	1	1	1
0.0357		1	1	1	1	1
0.0714		0.8	1	1	1	1
0.1071		1	1	1	1	1

**Mean Dry Biomass-mg Detail**

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Negative Control	0.868	0.91	0.888	0.956	0.802
0.0357		0.78	0.978	0.79	0.672	0.944
0.0714		0.722	0.898	1.06	0.828	0.824
0.1071		1.156	0.956	0.83	0.936	0.976

**7d Survival Rate Binomials**

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Negative Control	5/5	5/5	5/5	5/5	5/5
0.0357		5/5	5/5	5/5	5/5	5/5
0.0714		4/5	5/5	5/5	5/5	5/5
0.1071		5/5	5/5	5/5	5/5	5/5

**CETIS Analytical Report**

Report Date: 09 Jan-15 16:56 (p 1 of 4)  
 Test Code: LTS1214.209tops | 14-1085-0857

Pacific Topsmelt 7-d Survival and Growth Test					Aquatic Bioassay & Consulting Labs, Inc.						
Analysis ID:	11-8359-1342	Endpoint:	7d Survival Rate	CETIS Version:	CETISv1.8.7						
Analyzed:	09 Jan-15 16:56	Analysis:	Nonparametric-Control vs Treatments	Official Results:	Yes						
Sample ID:	00-4803-8803	Code:	LTS1214.209t	Client:	LTS Environmental, Inc.						
Sample Date:	15 Dec-14 07:00	Material:	Sample Water	Project:	Pl. Ely Inj. Water Annual Tox						
Receive Date:	15 Dec-14 14:20	Source:	Bioassay Report								
Sample Age:	35h (17.9 °C)	Station:	Pl. Ely Inj. Water								
Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU		
Angular (Corrected)	NA	C > T	NA	NA	8.76%	0.1071	>0.1071	NA	933.7		
<b>Steel Many-One Rank Sum Test</b>											
Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)		
Negative Control		0.0357	27.5	17	1	8	0.7500	Asymp	Non-Significant Effect		
		0.0714	25	17	1	8	0.5314	Asymp	Non-Significant Effect		
		0.1071	27.5	17	1	8	0.7500	Asymp	Non-Significant Effect		
<b>ANOVA Table</b>											
Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)					
Between	0.008506184	0.002835395	3	1	0.4182	Non-Significant Effect					
Error	0.04536632	0.002835395	16								
Total	0.0538725		19								
<b>Distributional Tests</b>											
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)						
Variances	Mod Levene Equality of Variance	1	5.953	0.4262	Equal Variances						
Variances	Levene Equality of Variance	7.111	5.292	0.0030	Unequal Variances						
Distribution	Shapiro-Wilk W Normality	0.4969	0.866	<0.0001	Non-normal Distribution						
Distribution	Kolmogorov-Smirnov D	0.45	0.2235	<0.0001	Non-normal Distribution						
Distribution	D'Agostino Skewness	4.576	2.576	<0.0001	Non-normal Distribution						
Distribution	D'Agostino Kurtosis	4.175	2.576	<0.0001	Non-normal Distribution						
Distribution	D'Agostino-Pearson K2 Omnibus	38.38	9.21	<0.0001	Non-normal Distribution						
Distribution	Anderson-Darling A2 Normality	4.585	3.878	<0.0001	Non-normal Distribution						
<b>7d Survival Rate Summary</b>											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	5	1	1	1	1	1	1	0	0.0%	0.0%
0.0357		5	1	1	1	1	1	1	0	0.0%	0.0%
0.0714		5	0.96	0.8489	1	1	0.8	1	0.04	9.32%	4.0%
0.1071		5	1	1	1	1	1	1	0	0.0%	0.0%
<b>Angular (Corrected) Transformed Summary</b>											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Contr	5	1.345	1.345	1.346	1.345	1.345	1.345	0	0.0%	0.0%
0.0357		5	1.345	1.345	1.346	1.345	1.345	1.345	0	0.0%	0.0%
0.0714		5	1.298	1.165	1.43	1.345	1.107	1.345	0.04763	8.21%	3.54%
0.1071		5	1.345	1.345	1.346	1.345	1.345	1.345	0	0.0%	0.0%
<b>7d Survival Rate Detail</b>											
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5					
0	Negative Control	1	1	1	1	1					
0.0357		1	1	1	1	1					
0.0714		0.8	1	1	1	1					
0.1071		1	1	1	1	1					

**CETIS Analytical Report**

Report Date: 09 Jan-15 16:56 (p 2 of 4)

Test Code: LTS1214.209tops | 14-1085-0857

Pacific Topsmelt 7-d Survival and Growth Test Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 11-8359-1342 Endpoint: 7d Survival Rate CETIS Version: CETISv1.8.7  
 Analyzed: 09 Jan-15 16:56 Analysis: Nonparametric-Control vs Treatments Official Results: Yes

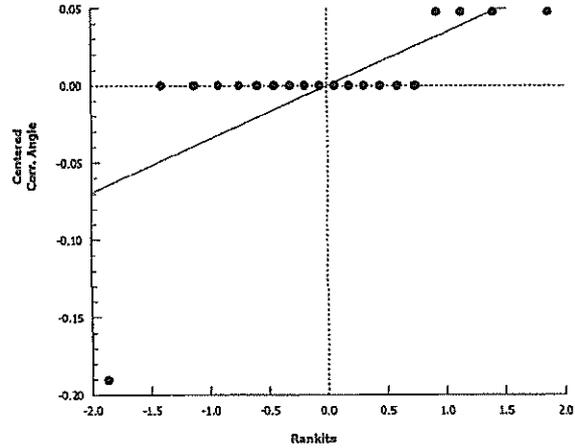
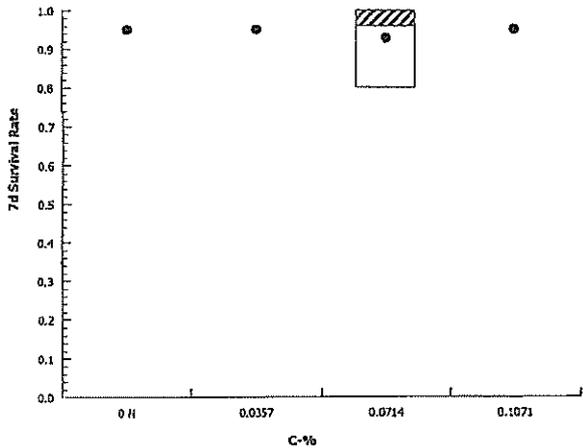
**Angular (Corrected) Transformed Detail**

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Negative Control	1.345	1.345	1.345	1.345	1.345
0.0357		1.345	1.345	1.345	1.345	1.345
0.0714		1.107	1.345	1.345	1.345	1.345
0.1071		1.345	1.345	1.345	1.345	1.345

**7d Survival Rate Binomials**

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Negative Control	5/5	5/5	5/5	5/5	5/5
0.0357		5/5	5/5	5/5	5/5	5/5
0.0714		4/5	5/5	5/5	5/5	5/5
0.1071		5/5	5/5	5/5	5/5	5/5

**Graphics**

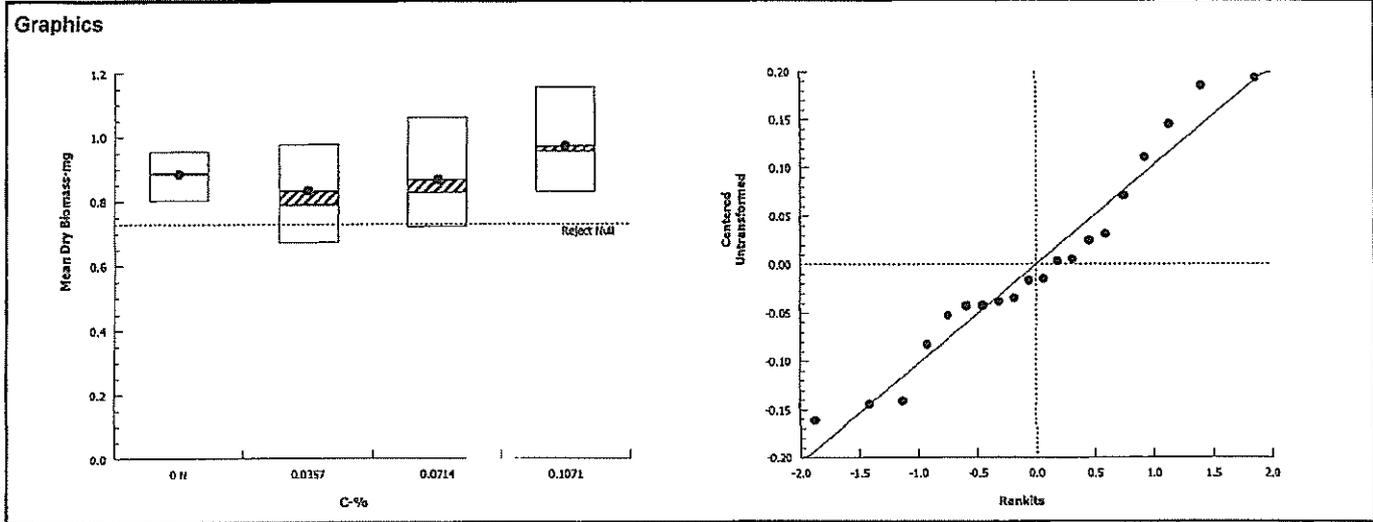




CETIS Analytical Report

Report Date: 09 Jan-15 16:56 (p 4 of 4)  
Test Code: LTS1214.209tops | 14-1085-0857

Pacific Topsmelt 7-d Survival and Growth Test		Aquatic Bioassay & Consulting Labs, Inc.	
Analysis ID: 11-2667-0448	Endpoint: Mean Dry Biomass-mg	CETIS Version: CETISv1.8.7	
Analyzed: 09 Jan-15 16:56	Analysis: Parametric-Control vs Treatments	Official Results: Yes	



# CETIS Analytical Report

Report Date: 09 Jan-15 16:56 (p 1 of 3)  
 Test Code: LTS1214.209tops | 14-1085-0857

**Pacific Topsmelt 7-d Survival and Growth Test** **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID: 08-8420-2441      Endpoint: 7d Survival Rate      CETIS Version: CETISv1.8.7  
 Analyzed: 09 Jan-15 16:56      Analysis: Linear Interpolation (ICPIN)      Official Results: Yes

Sample ID: 00-4803-8803      Code: LTS1214.209t      Client: LTS Environmental, Inc.  
 Sample Date: 15 Dec-14 07:00      Material: Sample Water      Project: Pl. Elly Inj. Water Annual Tox  
 Receive Date: 15 Dec-14 14:20      Source: Bioassay Report  
 Sample Age: 35h (17.9 °C)      Station: Pl. Elly Inj. Water

**Linear Interpolation Options**

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	0	280	Yes	Two-Point Interpolation

**Point Estimates**

Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC5	>0.1071	N/A	N/A	<933.7	NA	NA
EC10	>0.1071	N/A	N/A	<933.7	NA	NA
EC15	>0.1071	N/A	N/A	<933.7	NA	NA
EC20	>0.1071	N/A	N/A	<933.7	NA	NA
EC25	>0.1071	N/A	N/A	<933.7	NA	NA
EC40	>0.1071	N/A	N/A	<933.7	NA	NA
EC50	>0.1071	N/A	N/A	<933.7	NA	NA

**7d Survival Rate Summary** **Calculated Variate(A/B)**

C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B
0	Negative Control	5	1	1	1	0	0	0.0%	0.0%	25	25
0.0357		5	1	1	1	0	0	0.0%	0.0%	25	25
0.0714		5	0.96	0.8	1	0.04	0.08944	9.32%	4.0%	24	25
0.1071		5	1	1	1	0	0	0.0%	0.0%	25	25

**7d Survival Rate Detail**

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Negative Control	1	1	1	1	1
0.0357		1	1	1	1	1
0.0714		0.8	1	1	1	1
0.1071		1	1	1	1	1

**7d Survival Rate Binomials**

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Negative Control	5/5	5/5	5/5	5/5	5/5
0.0357		5/5	5/5	5/5	5/5	5/5
0.0714		4/5	5/5	5/5	5/5	5/5
0.1071		5/5	5/5	5/5	5/5	5/5

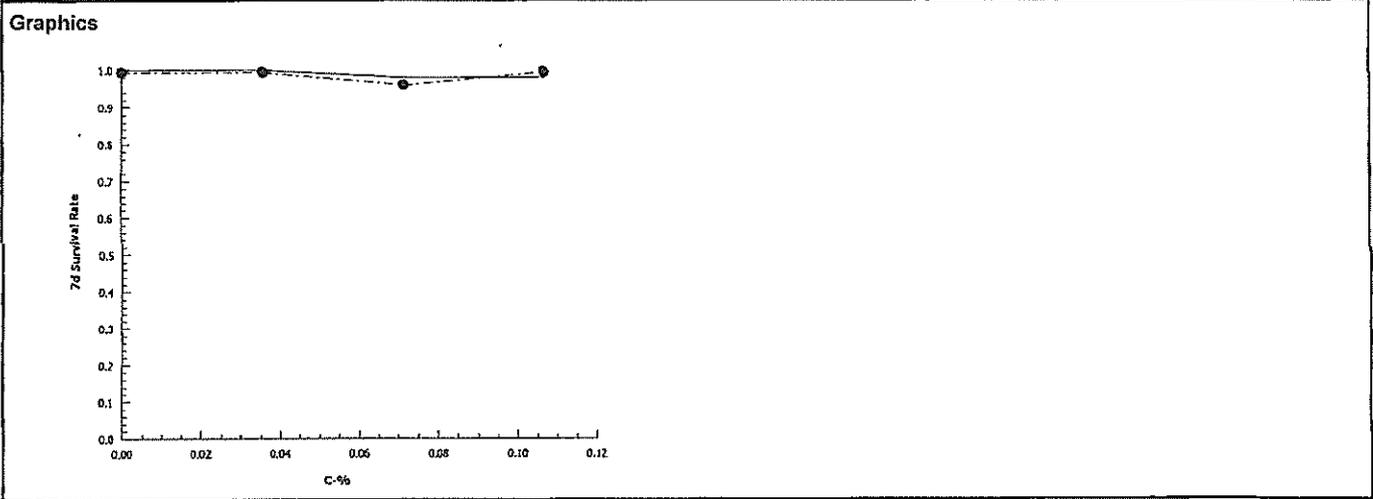
# CETIS Analytical Report

Report Date: 09 Jan-15 16:56 (p 2 of 3)  
 Test Code: LTS1214.209tops | 14-1085-0857

**Pacific Topsmelt 7-d Survival and Growth Test**

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 08-8420-2441      Endpoint: 7d Survival Rate      CETIS Version: CETISv1.8.7  
 Analyzed: 09 Jan-15 16:56      Analysis: Linear Interpolation (ICPIN)      Official Results: Yes



**CETIS Analytical Report**

Report Date: 09 Jan-15 16:56 (p 3 of 3)  
 Test Code: LTS1214.209tops | 14-1085-0857

Pacific Topsmelt 7-d Survival and Growth Test Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 19-7750-7203 Endpoint: Mean Dry Biomass-mg CETIS Version: CETISv1.8.7  
 Analyzed: 09 Jan-15 16:56 Analysis: Linear Interpolation (ICPIN) Official Results: Yes

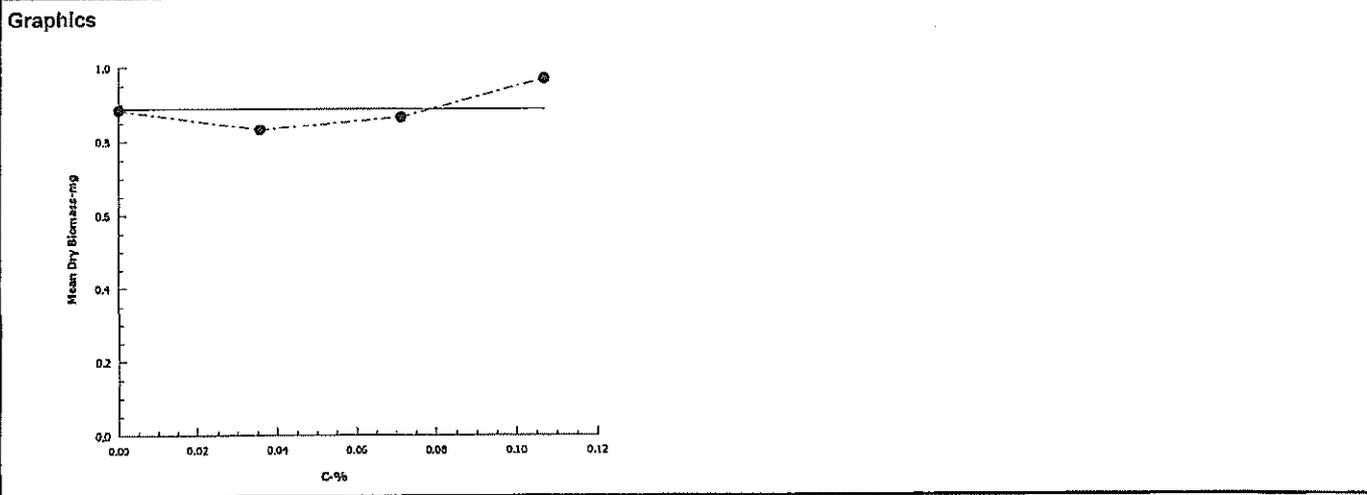
Sample ID: 00-4803-8803 Code: LTS1214.209t Client: LTS Environmental, Inc.  
 Sample Date: 15 Dec-14 07:00 Material: Sample Water Project: Pl. Ely Inj. Water Annual Tox  
 Receive Date: 15 Dec-14 14:20 Source: Bioassay Report  
 Sample Age: 35h (17.9 °C) Station: Pl. Ely Inj. Water

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1271620	280	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
IC5	>0.1071	N/A	N/A	<933.7	NA	NA
IC10	>0.1071	N/A	N/A	<933.7	NA	NA
IC15	>0.1071	N/A	N/A	<933.7	NA	NA
IC20	>0.1071	N/A	N/A	<933.7	NA	NA
IC25	>0.1071	N/A	N/A	<933.7	NA	NA
IC40	>0.1071	N/A	N/A	<933.7	NA	NA
IC50	>0.1071	N/A	N/A	<933.7	NA	NA

Mean Dry Biomass-mg Summary			Calculated Variate							
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	
0	Negative Control	5	0.8848	0.802	0.956	0.02535	0.05669	6.41%	0.0%	
0.0357		5	0.8328	0.672	0.978	0.05654	0.1264	15.18%	5.88%	
0.0714		5	0.8664	0.722	1.06	0.05595	0.1251	14.44%	2.08%	
0.1071		5	0.9708	0.83	1.156	0.05272	0.1179	12.14%	-9.72%	

Mean Dry Biomass-mg Detail						
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Negative Control	0.868	0.91	0.888	0.956	0.802
0.0357		0.78	0.978	0.79	0.672	0.944
0.0714		0.722	0.898	1.06	0.828	0.824
0.1071		1.156	0.956	0.83	0.936	0.976



**CETIS Measurement Report**

Report Date: 09 Jan-15 16:56 (p 1 of 2)  
 Test Code: LTS1214.209tops | 14-1085-0857

**Pacific Topsmelt 7-d Survival and Growth Test**

Aquatic Bioassay & Consulting Labs, Inc.

atch ID: 15-9305-8039	Test Type: Growth-Survival (7d)	Analyst:
Start Date: 16 Dec-14 17:55	Protocol: EPA/600/R-95/136 (1995)	Diluent: Laboratory Seawater
Ending Date: 23 Dec-14 15:55	Species: Atherinops affinis	Brine: Not Applicable
Duration: 6d 22h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 00-4803-8803	Code: LTS1214.209t	Client: LTS Environmental, Inc.
Sample Date: 15 Dec-14 07:00	Material: Sample Water	Project: Pl. Elly Inj. Water Annual Tox
Receive Date: 15 Dec-14 14:20	Source: Bioassay Report	
Sample Age: 35h (17.9 °C)	Station: Pl. Elly Inj. Water	

**Dissolved Oxygen-mg/L**

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	6.938	6.586	7.289	6.1	7.4	0.1487	0.4207	6.06%	0
0.0357		8	6.813	6.328	7.297	5.8	7.4	0.2048	0.5793	8.5%	0
0.0714		8	6.85	6.383	7.317	6.1	7.5	0.1973	0.5581	8.15%	0
0.1071		8	6.875	6.364	7.386	6	7.5	0.2161	0.6112	8.89%	0
Overall		32	6.869			5.8	7.5				0 (0%)

**pH-Units**

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	7.525	7.428	7.622	7.3	7.7	0.04119	0.1165	1.55%	0
0.0357		8	7.575	7.501	7.649	7.5	7.7	0.03134	0.08864	1.17%	0
0.0714		8	7.575	7.501	7.649	7.5	7.7	0.03134	0.08864	1.17%	0
0.1071		8	7.588	7.505	7.67	7.5	7.7	0.03504	0.0991	1.31%	0
Overall		32	7.566			7.3	7.7				0 (0%)

**Salinity-ppt**

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	34	34	34	34	34	0	0	0.0%	0
0.0357		8	34	34	34	34	34	0	0	0.0%	0
0.0714		8	34	34	34	34	34	0	0	0.0%	0
0.1071		8	34	34	34	34	34	0	0	0.0%	0
Overall		32	34			34	34				0 (0%)

**Temperature-°C**

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	21	21	21	21	21	0	0	0.0%	0
0.0357		8	21	21	21	21	21	0	0	0.0%	0
0.0714		8	21	21	21	21	21	0	0	0.0%	0
0.1071		8	21	21	21	21	21	0	0	0.0%	0
Overall		32	21			21	21				0 (0%)

**CETIS Measurement Report**

Report Date: 09 Jan-15 16:56 (p 2 of 2)  
 Test Code: LTS1214.209tops | 14-1085-0857

**Pacific Topsmelt 7-d Survival and Growth Test**

Aquatic Bioassay & Consulting Labs, Inc.

**Dissolved Oxygen-mg/L**

C-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	7	7	7.2	7.3	6.6	7.4	6.9	6.1
0.0357		7.1	7.4	7.3	7.2	5.8	6.8	6.8	6.1
0.0714		7.2	7.5	7.4	7.2	6.1	6.6	6.7	6.1
0.1071		7.3	7.5	7.5	7.3	6	6.6	6.7	6.1

**Total Ammonia (N)-mg/L**

C-%	Control Type	1
0	Negative Contr	
0.1071		

**pH-Units**

C-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	7.5	7.6	7.6	7.7	7.5	7.3	7.5	7.5
0.0357		7.6	7.6	7.7	7.7	7.5	7.5	7.5	7.5
0.0714		7.6	7.6	7.7	7.7	7.5	7.5	7.5	7.5
0.1071		7.6	7.7	7.7	7.7	7.5	7.5	7.5	7.5

**Salinity-ppt**

C-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	34	34	34	34	34	34	34	34
0.0357		34	34	34	34	34	34	34	34
0.0714		34	34	34	34	34	34	34	34
0.1071		34	34	34	34	34	34	34	34

**Temperature-°C**

C-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	21	21	21	21	21	21	21	21
0.0357		21	21	21	21	21	21	21	21
0.0714		21	21	21	21	21	21	21	21
0.1071		21	21	21	21	21	21	21	21



January 16, 2015

Ms. Marina Robertson  
Beta Offshore  
111 W Ocean Blvd., Suite 1240  
Long Beach, CA 90802

Dear Ms. Robertson

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms EPA/600/R-95-136, 1995*. Results were as follows:

CLIENT:	Beta Offshore
SAMPLE I.D.:	Platform Elly Inj. Water
DATE RECEIVED:	15 Dec - 14
ABC LAB. NO.:	LTS1214.209

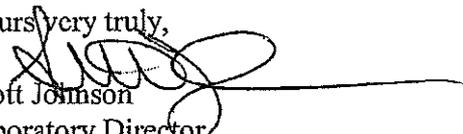
#### CHRONIC KELP GERMINATION AND GROWTH BIOASSAY

IWC CONCENTRATION = 0.0714%

#### TST RESULT

Germination	PASS
Tube Length	PASS

Yours very truly,

  
Scott Johnson  
Laboratory Director

**CETIS Summary Report**

Report Date: 16 Jan-15 11:28 (p 1 of 2)  
 Test Code: LTS1214.209klp | 14-2896-8339

**Macrocystis Germination and Germ Tube Growth Test**

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 05-9834-4520	Test Type: Growth-Germination	Analyst:
Start Date: 16 Dec-14 15:31	Protocol: EPA/600/R-95/136 (1995)	Diluent: Laboratory Seawater
Ending Date: 18 Dec-14 16:00	Species: Macrocystis pyrifera	Brine: Not Applicable
Duration: 48h	Source: Aquatic Bioassay Labs Collection	Age:
Sample ID: 09-7775-0756	Code: LTS1214.209klp	Client: LTS Environmental, Inc.
Sample Date: 15 Dec-14 07:00	Material: Sample Water	Project:
Receive Date: 15 Dec-14 14:20	Source: Bioassay Report	
Sample Age: 33h (17.9 °C)	Station: Platform Elly	

**Comparison Summary**

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
13-0772-7888	Germination Rate	0.1071	>0.1071	NA	3.34%	933.7	Dunnett Multiple Comparison Test
03-4573-4462	Mean Length	0.1071	>0.1071	NA	1.86%	933.7	Dunnett Multiple Comparison Test

**Point Estimate Summary**

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
09-8254-3284	Germination Rate	EC5	>0.1071	N/A	N/A	<933.7	Linear Interpolation (ICPIN)
		EC10	>0.1071	N/A	N/A	<933.7	
		EC15	>0.1071	N/A	N/A	<933.7	
		EC20	>0.1071	N/A	N/A	<933.7	
		EC25	>0.1071	N/A	N/A	<933.7	
		EC40	>0.1071	N/A	N/A	<933.7	
		EC50	>0.1071	N/A	N/A	<933.7	
17-8523-0640	Mean Length	IC5	>0.1071	N/A	N/A	<933.7	Linear Interpolation (ICPIN)
		IC10	>0.1071	N/A	N/A	<933.7	
		IC15	>0.1071	N/A	N/A	<933.7	
		IC20	>0.1071	N/A	N/A	<933.7	
		IC25	>0.1071	N/A	N/A	<933.7	
		IC40	>0.1071	N/A	N/A	<933.7	
		IC50	>0.1071	N/A	N/A	<933.7	

**Test Acceptability**

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
09-8254-3284	Germination Rate	Control Resp	0.94	0.7 - NL	Yes	Passes Acceptability Criteria
13-0772-7888	Germination Rate	Control Resp	0.94	0.7 - NL	Yes	Passes Acceptability Criteria
03-4573-4462	Mean Length	Control Resp	14.44	10 - NL	Yes	Passes Acceptability Criteria
17-8523-0640	Mean Length	Control Resp	14.44	10 - NL	Yes	Passes Acceptability Criteria
13-0772-7888	Germination Rate	PMSD	0.03336	NL - 0.2	No	Passes Acceptability Criteria
03-4573-4462	Mean Length	PMSD	0.01857	NL - 0.2	No	Passes Acceptability Criteria

**Germination Rate Summary**

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	5	0.94	0.9152	0.9648	0.91	0.96	0.008944	0.02	2.13%	0.0%
0.0357		5	0.942	0.9258	0.9582	0.93	0.96	0.005831	0.01304	1.38%	-0.21%
0.0714		5	0.95	0.9183	0.9817	0.92	0.98	0.0114	0.0255	2.68%	-1.06%
0.1071		5	0.944	0.9214	0.9666	0.92	0.96	0.008124	0.01817	1.92%	-0.43%

**Mean Length Summary**

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	5	14.44	14.27	14.61	14.2	14.5	0.06	0.1342	0.93%	0.0%
0.0357		5	14.5	14.27	14.73	14.3	14.8	0.08367	0.1871	1.29%	-0.42%
0.0714		5	14.32	14	14.64	14	14.7	0.1158	0.2588	1.81%	0.83%
0.1071		5	14.6	14.4	14.8	14.4	14.8	0.07071	0.1581	1.08%	-1.11%

**CETIS Summary Report**

Report Date: 16 Jan-15 11:28 (p 2 of 2)  
 Test Code: LTS1214.209klp | 14-2896-8339

**Macrocystis Germination and Germ Tube Growth Test**

Aquatic Bioassay & Consulting Labs, Inc.

**Germination Rate Detail**

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Negative Control	0.91	0.93	0.95	0.96	0.95
0.0357		0.93	0.96	0.94	0.93	0.95
0.0714		0.98	0.95	0.97	0.92	0.93
0.1071		0.96	0.95	0.93	0.96	0.92

**Mean Length Detail**

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Negative Control	14.5	14.2	14.5	14.5	14.5
0.0357		14.4	14.5	14.5	14.3	14.8
0.0714		14.2	14.3	14	14.4	14.7
0.1071		14.6	14.8	14.5	14.7	14.4

**Germination Rate Binomials**

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Negative Control	91/100	93/100	95/100	96/100	95/100
0.0357		93/100	96/100	94/100	93/100	95/100
0.0714		98/100	95/100	97/100	92/100	93/100
0.1071		96/100	95/100	93/100	96/100	92/100



**CETIS Analytical Report**

Report Date: 16 Jan-15 11:28 (p 2 of 4)  
 Test Code: LTS1214.209kip | 14-2896-8339

**Macrocystis Germination and Germ Tube Growth Test** Aquatic Bioassay & Consulting Labs, Inc.

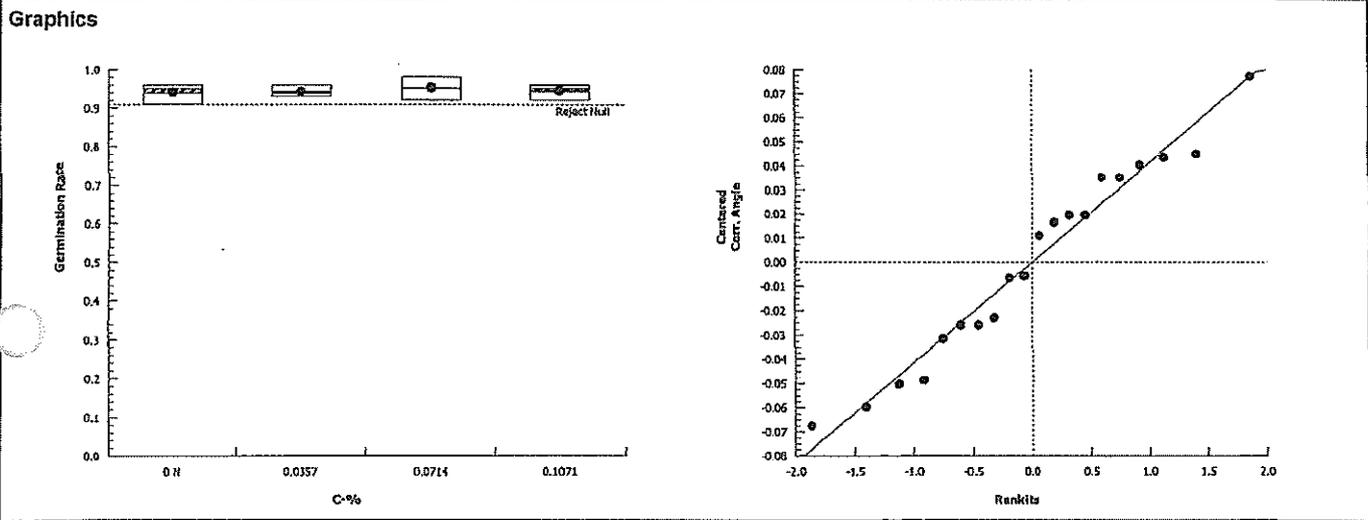
Analysis ID: 13-0772-7888      Endpoint: Germination Rate      CETIS Version: CETISv1.8.7  
 Analyzed: 16 Jan-15 11:27      Analysis: Parametric-Control vs Treatments      Official Results: Yes

**Angular (Corrected) Transformed Detail**

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Negative Control	1.266	1.303	1.345	1.369	1.345
0.0357		1.303	1.369	1.323	1.303	1.345
0.0714		1.429	1.345	1.397	1.284	1.303
0.1071		1.369	1.345	1.303	1.369	1.284

**Germination Rate Binomials**

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Negative Control	91/100	93/100	95/100	96/100	95/100
0.0357		93/100	96/100	94/100	93/100	95/100
0.0714		98/100	95/100	97/100	92/100	93/100
0.1071		96/100	95/100	93/100	96/100	92/100



**CETIS Analytical Report**

Report Date: 16 Jan-15 11:28 (p 3 of 4)  
 Test Code: LTS1214.209klp | 14-2896-8339

**Macrocyctis Germination and Germ Tube Growth Test** Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 03-4573-4462	Endpoint: Mean Length	CETIS Version: CETISv1.8.7
Analyzed: 16 Jan-15 11:27	Analysis: Parametric-Control vs Treatments	Official Results: Yes

Sample ID: 09-7775-0756	Code: LTS1214.209klp	Client: LTS Environmental, Inc.
Sample Date: 15 Dec-14 07:00	Material: Sample Water	Project:
Receive Date: 15 Dec-14 14:20	Source: Bioassay Report	
Sample Age: 33h (17.9 °C)	Station: Platform Elly	

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Untransformed	NA	C > T	NA	NA	1.86%	0.1071	>0.1071	NA	933.7

**Dunnett Multiple Comparison Test**

Control	vs C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Negative Control	0.0357	-0.4983	2.227	0.268	8	0.8910	CDF	Non-Significant Effect
	0.0714	0.9965	2.227	0.268	8	0.3331	CDF	Non-Significant Effect
	0.1071	-1.329	2.227	0.268	8	0.9827	CDF	Non-Significant Effect

**ANOVA Table**

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.2055002	0.06850006	3	1.89	0.1720	Non-Significant Effect
Error	0.5800002	0.03625001	16			
Total	0.7855004		19			

**Distributional Tests**

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	1.784	11.34	0.6184	Equal Variances
Variances	Mod Levene Equality of Variance	0.9231	5.953	0.4592	Equal Variances
Variances	Levene Equality of Variance	0.5163	5.292	0.6769	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9684	0.866	0.7200	Normal Distribution
Distribution	Kolmogorov-Smirnov D	0.1335	0.2235	0.4679	Normal Distribution
Distribution	D'Agostino Skewness	0.5859	2.576	0.5579	Normal Distribution
Distribution	D'Agostino Kurtosis	0.4359	2.576	0.6629	Normal Distribution
Distribution	D'Agostino-Pearson K2 Omnibus	0.5333	9.21	0.7659	Normal Distribution
Distribution	Anderson-Darling A2 Normality	0.3742	3.878	0.4206	Normal Distribution

**Mean Length Summary**

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	5	14.44	14.27	14.61	14.5	14.2	14.5	0.06	0.93%	0.0%
0.0357		5	14.5	14.27	14.73	14.5	14.3	14.8	0.08367	1.29%	-0.42%
0.0714		5	14.32	14	14.64	14.3	14	14.7	0.1158	1.81%	0.83%
0.1071		5	14.6	14.4	14.8	14.6	14.4	14.8	0.07071	1.08%	-1.11%

**Mean Length Detail**

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Negative Control	14.5	14.2	14.5	14.5	14.5
0.0357		14.4	14.5	14.5	14.3	14.8
0.0714		14.2	14.3	14	14.4	14.7
0.1071		14.6	14.8	14.5	14.7	14.4

CETIS Analytical Report

Report Date: 16 Jan-15 11:28 (p 4 of 4)  
 Test Code: LTS1214.209kp | 14-2896-8339

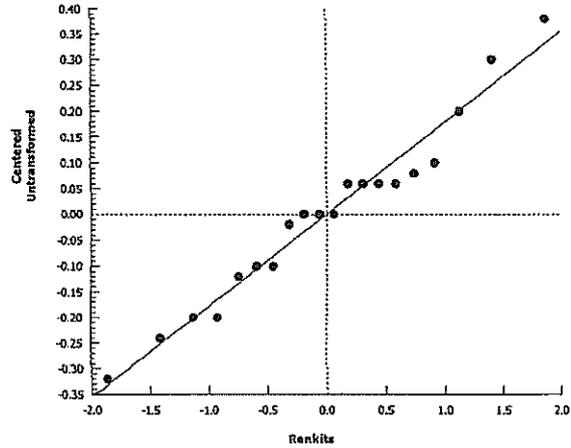
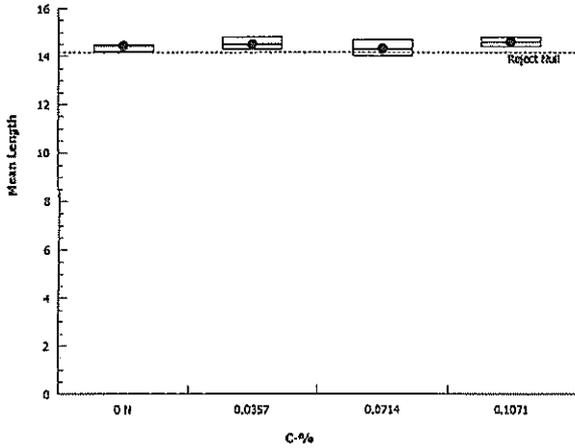
Macrocystis Germination and Germ Tube Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 03-4573-4462      Endpoint: Mean Length  
 Analyzed: 16 Jan-15 11:27      Analysis: Parametric-Control vs Treatments

CETIS Version: CETISv1.8.7  
 Official Results: Yes

Graphics



**CETIS Analytical Report**

Report Date: 16 Jan-15 11:28 (p 1 of 3)  
 Test Code: LTS1214.209klp | 14-2896-8339

<b>Macrocyctis Germination and Germ Tube Growth Test</b>			<b>Aquatic Bioassay &amp; Consulting Labs, Inc.</b>		
Analysis ID: 09-8254-3284	Endpoint: Germination Rate	CETIS Version: CETISv1.8.7			
Analyzed: 16 Jan-15 11:27	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Sample ID: 09-7775-0756	Code: LTS1214.209klp	Client: LTS Environmental, Inc.
Sample Date: 15 Dec-14 07:00	Material: Sample Water	Project:
Receive Date: 15 Dec-14 14:20	Source: Bioassay Report	
Sample Age: 33h (17.9 °C)	Station: Platform Elly	

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	0	280	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC5	>0.1071	N/A	N/A	<933.7	NA	NA
EC10	>0.1071	N/A	N/A	<933.7	NA	NA
EC15	>0.1071	N/A	N/A	<933.7	NA	NA
EC20	>0.1071	N/A	N/A	<933.7	NA	NA
EC25	>0.1071	N/A	N/A	<933.7	NA	NA
EC40	>0.1071	N/A	N/A	<933.7	NA	NA
EC50	>0.1071	N/A	N/A	<933.7	NA	NA

Germination Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Negative Control	5	0.94	0.91	0.96	0.008944	0.02	2.13%	0.0%	470	500	
0.0357		5	0.942	0.93	0.96	0.005831	0.01304	1.38%	-0.21%	471	500	
0.0714		5	0.95	0.92	0.98	0.0114	0.02549	2.68%	-1.06%	475	500	
0.1071		5	0.944	0.92	0.96	0.008124	0.01817	1.92%	-0.43%	472	500	

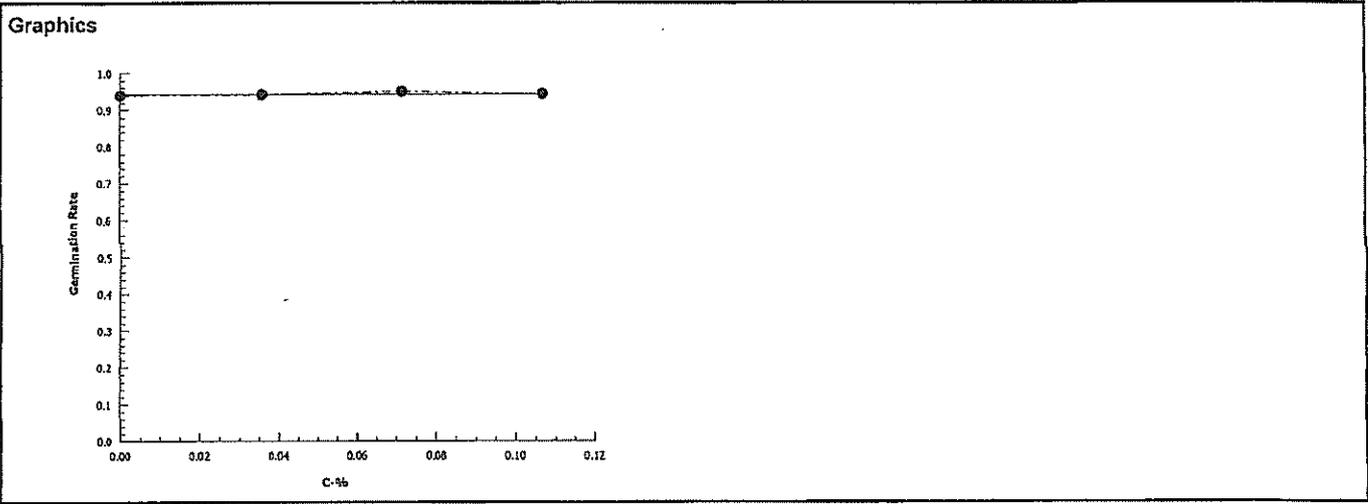
Germination Rate Detail						
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Negative Control	0.91	0.93	0.95	0.96	0.95
0.0357		0.93	0.96	0.94	0.93	0.95
0.0714		0.98	0.95	0.97	0.92	0.93
0.1071		0.96	0.95	0.93	0.96	0.92

Germination Rate Binomials						
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Negative Control	91/100	93/100	95/100	96/100	95/100
0.0357		93/100	96/100	94/100	93/100	95/100
0.0714		98/100	95/100	97/100	92/100	93/100
0.1071		96/100	95/100	93/100	96/100	92/100

CETIS Analytical Report

Report Date: 16 Jan-15 11:28 (p 2 of 3)  
Test Code: LTS1214.209klp | 14-2896-8339

Macrocystis Germination and Germ Tube Growth Test		Aquatic Bioassay & Consulting Labs, Inc.	
Analysis ID: 09-8254-3284	Endpoint: Germination Rate	CETIS Version: CETISv1.8.7	
Analyzed: 16 Jan-15 11:27	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes	



**CETIS Analytical Report**

Report Date: 16 Jan-15 11:28 (p 3 of 3)  
 Test Code: LTS1214.209klp | 14-2896-8339

**Macrocyctis Germination and Germ Tube Growth Test** Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 17-8523-0640	Endpoint: Mean Length	CETIS Version: CETISv1.8.7
Analyzed: 16 Jan-15 11:27	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes

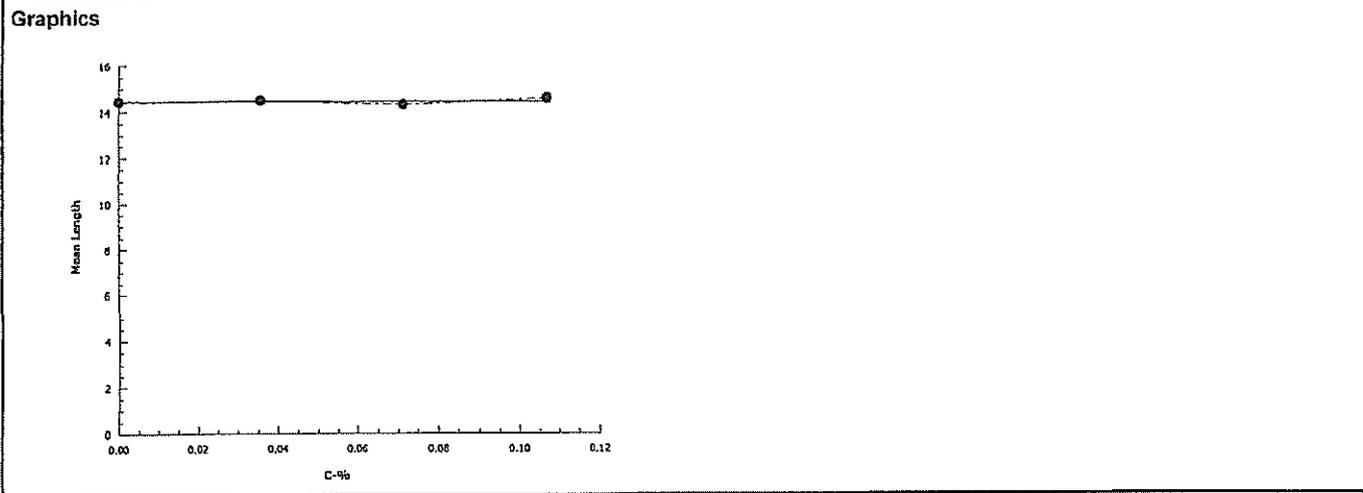
Sample ID: 09-7775-0756	Code: LTS1214.209klp	Client: LTS Environmental, Inc.
Sample Date: 15 Dec-14 07:00	Material: Sample Water	Project:
Receive Date: 15 Dec-14 14:20	Source: Bioassay Report	
Sample Age: 33h (17.9 °C)	Station: Platform Elly	

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	339385	280	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
IC5	>0.1071	N/A	N/A	<933.7	NA	NA
IC10	>0.1071	N/A	N/A	<933.7	NA	NA
IC15	>0.1071	N/A	N/A	<933.7	NA	NA
IC20	>0.1071	N/A	N/A	<933.7	NA	NA
IC25	>0.1071	N/A	N/A	<933.7	NA	NA
IC40	>0.1071	N/A	N/A	<933.7	NA	NA
IC50	>0.1071	N/A	N/A	<933.7	NA	NA

Mean Length Summary			Calculated Variate						
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	5	14.44	14.2	14.5	0.06	0.1342	0.93%	0.0%
0.0357		5	14.5	14.3	14.8	0.08367	0.1871	1.29%	-0.42%
0.0714		5	14.32	14	14.7	0.1158	0.2588	1.81%	0.83%
0.1071		5	14.6	14.4	14.8	0.07071	0.1581	1.08%	-1.11%

Mean Length Detail						
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Negative Control	14.5	14.2	14.5	14.5	14.5
0.0357		14.4	14.5	14.5	14.3	14.8
0.0714		14.2	14.3	14	14.4	14.7
0.1071		14.6	14.8	14.5	14.7	14.4







ARMANDA ROBERTSON  
111 W. STEVEN BLVD. SUITE 1247, LONG BEACH  
CA 90802

**CHAIN OF CUSTODY RECORD**

Client: <b>Beta Offshore</b>				Project Name/Number: <b>c/o LTS</b>				Project Mgr: <b>Pl. Elly Ing, Water Analytex</b>			
Address: <b>Beta Offshore</b>				P.O. #				Sampled By (signature): <i>[Signature]</i>			
Phone Number: <b>644-4560</b>				Date: <b>12/15/14</b>				Time: <b>0700</b>			
		Comp.	Grab	Matrix	Sample ID	Volumel/ Number	Analysis				
		<input checked="" type="checkbox"/>	<input type="checkbox"/>		Pl. Elly Ing, Water						Temp. deg. C = <b>19.9 C</b>
											Chlorine (mg/L) = <b>20.1</b>
											NH3 (mg/L) = <b>7.0</b>
Retinquised By: (signature) <i>[Signature]</i>				Date: Time: <b>12/15/14 1420</b>				Analysis			
Received By: (signature) <i>[Signature]</i>				Date: Time: <b>12/15/14 1430</b>				Temp. upon sample receipt: _____ °C			
				Retinquised By: (signature)				Date: Time:			
				Received By: (signature)				Date: Time:			
								Comments: <b>see top</b>			



### CHRONIC TOPSMELT SURVIVAL AND GROWTH BIOASSAY

DATE: 16 December - 2014

STANDARD TOXICANT: Copper Chloride

ENDPOINT: SURVIVAL

NOEC = 100.00 ug/l

EC25 = 123.30 ug/l

EC50 = 177.80 ug/l

ENDPOINT: GROWTH

NOEC = 320.00 ug/l

IC25 = 139.90 ug/l

IC50 = 192.90 ug/l

Yours very truly,



Scott Johnson  
Laboratory Director

**CETIS Summary Report**

Report Date: 09 Jan-15 16:55 (p 1 of 2)  
 Test Code: TOPS121614 | 05-2822-8192

**Pacific Topsmelt 7-d Survival and Growth Test**

Aquatic Bioassay & Consulting Labs, Inc.

Batch ID: 00-4606-8122	Test Type: Growth-Survival (7d)	Analyst:
Start Date: 16 Dec-14 17:30	Protocol: EPA/600/R-95/136 (1995)	Diluent: Laboratory Seawater
Ending Date: 23 Dec-14 15:30	Species: Atherinops affinis	Brine: Not Applicable
Duration: 6d 22h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 09-8210-0889	Code: TOPS121614t	Client: ABC Labs
Sample Date: 16 Dec-14 17:30	Material: Copper chloride	Project: REF TOX
Receive Date:	Source: Reference Toxicant	
Sample Age: NA	Station: REF TOX	

**Comparison Summary**

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
02-6133-8057	7d Survival Rate	100	180	134.2	15.9%		Dunnett Multiple Comparison Test
11-6081-3397	Mean Dry Biomass-mg	320	560	423.3	36.9%		Steel Many-One Rank Sum Test

**Point Estimate Summary**

Analysis ID	Endpoint	Level	µg/L	95% LCL	95% UCL	TU	Method
11-3674-2838	7d Survival Rate	EC5	71.4	60.09	125.5		Linear Interpolation (ICPIN)
		EC10	86.8	64.17	129.7		
		EC15	101.6	68.58	133.8		
		EC20	112.4	74.92	141.8		
		EC25	123.3	81.26	149.7		
		EC40	156	132	182.7		
13-0314-1557	Mean Dry Biomass-mg	IC5	106.8	49.82	113.6		Linear Interpolation (ICPIN)
		IC10	115.1	70.56	126.5		
		IC15	123.3	88.5	140.3		
		IC20	131.6	102.6	154.8		
		IC25	139.9	113.3	168.7		
		IC40	164.7	140.5	437.3		
		IC50	192.9	148.4	476.6		

**Test Acceptability**

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
02-6133-8057	7d Survival Rate	Control Resp	0.96	0.8 - NL	Yes	Passes Acceptability Criteria
11-3674-2838	7d Survival Rate	Control Resp	0.96	0.8 - NL	Yes	Passes Acceptability Criteria
11-6081-3397	Mean Dry Biomass-mg	Control Resp	0.8776	0.85 - NL	Yes	Passes Acceptability Criteria
13-0314-1557	Mean Dry Biomass-mg	Control Resp	0.8776	0.85 - NL	Yes	Passes Acceptability Criteria
02-6133-8057	7d Survival Rate	PMSD	0.1595	NL - 0.25	No	Passes Acceptability Criteria
11-6081-3397	Mean Dry Biomass-mg	PMSD	0.3687	NL - 0.5	No	Passes Acceptability Criteria

**7d Survival Rate Summary**

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	5	0.96	0.8489	1	0.8	1	0.04	0.08944	9.32%	0.0%
56		5	1	1	1	1	1	0	0	0.0%	-4.17%
100		5	0.84	0.6322	1	0.6	1	0.07483	0.1673	19.92%	12.5%
180		5	0.48	0.344	0.616	0.4	0.6	0.04899	0.1095	22.82%	50.0%
320		5	0.12	0	0.256	0	0.2	0.04899	0.1095	91.29%	87.5%
560		5	0	0	0	0	0	0	0	100.0%	

**Mean Dry Biomass-mg Summary**

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	5	0.8776	0.794	0.9612	0.828	0.988	0.03012	0.06734	7.67%	0.0%
56		5	0.9372	0.8612	1.013	0.858	1.024	0.02737	0.0612	6.53%	-6.79%
100		5	0.8992	0.7117	1.087	0.666	1.046	0.06752	0.151	16.79%	-2.46%
0		5	0.4608	0.2648	0.6568	0.278	0.666	0.0706	0.1579	34.26%	47.49%
100		5	0.3836	-0.1582	0.9254	0	0.938	0.1951	0.4363	113.7%	56.29%
560		5	0	0	0	0	0	0	0		100.0%



**CETIS Analytical Report**

Report Date: 09 Jan-15 16:55 (p 1 of 4)  
 Test Code: TOPS121614 | 05-2822-8192

**Pacific Topsmelt 7-d Survival and Growth Test** Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 02-6133-8057      Endpoint: 7d Survival Rate      CETIS Version: CETISv1.8.7  
 Analyzed: 09 Jan-15 16:55      Analysis: Parametric-Control vs Treatments      Official Results: Yes

Sample ID: 09-8210-0889      Code: TOPS121614t      Client: ABC Labs  
 Sample Date: 16 Dec-14 17:30      Material: Copper chloride      Project: REF TOX  
 Receive Date:      Source: Reference Toxicant  
 Sample Age: NA      Station: REF TOX

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	15.9%	100	180	134.2	

**Dunnett Multiple Comparison Test**

Control	vs	C-µg/L	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Negative Control		56	-0.6036	2.305	0.182	8	0.9377	CDF	Non-Significant Effect
		100	1.767	2.305	0.182	8	0.1311	CDF	Non-Significant Effect
		180*	6.747	2.305	0.182	8	<0.0001	CDF	Significant Effect
		320*	11.78	2.305	0.182	8	<0.0001	CDF	Significant Effect

**ANOVA Table**

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.430101	0.8575253	4	55.09	<0.0001	Significant Effect
Error	0.3113332	0.01556666	20			
Total	3.741434		24			

**Distributional Tests**

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	1.421	4.893	0.2750	Equal Variances
Variances	Levene Equality of Variance	5.344	4.431	0.0043	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9687	0.8877	0.6128	Normal Distribution
Distribution	Kolmogorov-Smirnov D	0.14	0.2018	0.2305	Normal Distribution
Distribution	D'Agostino Skewness	1.037	2.576	0.2996	Normal Distribution
Distribution	D'Agostino Kurtosis	0.3023	2.576	0.7624	Normal Distribution
Distribution	D'Agostino-Pearson K2 Omnibus	1.167	9.21	0.5579	Normal Distribution
Distribution	Anderson-Darling A2 Normality	0.339	3.878	0.5042	Normal Distribution

**7d Survival Rate Summary**

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	5	0.96	0.8489	1	1	0.8	1	0.04	9.32%	0.0%
56		5	1	1	1	1	1	1	0	0.0%	-4.17%
100		5	0.84	0.6322	1	0.8	0.6	1	0.07483	19.92%	12.5%
180		5	0.48	0.344	0.616	0.4	0.4	0.6	0.04899	22.82%	50.0%
320		5	0.12	0	0.256	0.2	0	0.2	0.04899	91.29%	87.5%
560		5	0	0	0	0	0	0	0		100.0%

**Angular (Corrected) Transformed Summary**

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Contr	5	1.298	1.165	1.43	1.345	1.107	1.345	0.04763	8.21%	0.0%
56		5	1.345	1.345	1.346	1.345	1.345	1.345	0	0.0%	-3.67%
100		5	1.158	0.9183	1.398	1.107	0.8861	1.345	0.08639	16.68%	10.75%
180		5	0.7653	0.6283	0.9022	0.6847	0.6847	0.8861	0.04932	14.41%	41.03%
320		5	0.3684	0.2064	0.5303	0.4636	0.2255	0.4636	0.05833	35.41%	71.61%
560		5	0.2255	0.2255	0.2256	0.2255	0.2255	0.2255	0	0.0%	82.62%



# CETIS Analytical Report

Report Date: 09 Jan-15 16:55 (p 3 of 4)  
 Test Code: TOPS121614 | 05-2822-8192

Aquatic Bioassay & Consulting Labs, Inc.

<b>Pacific Topsmelt 7-d Survival and Growth Test</b>		<b>Endpoint:</b> Mean Dry Biomass-mg	<b>CETIS Version:</b> CETISv1.8.7
<b>Analysis ID:</b> 11-6081-3397	<b>Analized:</b> 09 Jan-15 16:55	<b>Analysis:</b> Nonparametric-Control vs Treatments	<b>Official Results:</b> Yes
<b>Sample ID:</b> 09-8210-0889	<b>Code:</b> TOPS121614t	<b>Client:</b> ABC Labs	
<b>Sample Date:</b> 16 Dec-14 17:30	<b>Material:</b> Copper chloride	<b>Project:</b> REF TOX	
<b>Receive Date:</b>	<b>Source:</b> Reference Toxicant		
<b>Sample Age:</b> NA	<b>Station:</b> REF TOX		

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Untransformed	NA	C > T	NA	NA	36.9%	320	560	423.3	

Control	vs	C-µg/L	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Negative Control		56	35	17	0	8	0.9966	Asymp	Non-Significant Effect
		100	32	17	0	8	0.9746	Asymp	Non-Significant Effect
		180*	15	17	0	8	0.0158	Asymp	Significant Effect
		320	19	17	0	8	0.1130	Asymp	Non-Significant Effect

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.420649	0.3551621	4	7.207	0.0009	Significant Effect
Error	0.9855888	0.04927944	20			
Total	2.406237		24			

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	18.41	13.28	0.0010	Unequal Variances
Variances	Mod Levene Equality of Variance	6.574	4.893	0.0029	Unequal Variances
Variances	Levene Equality of Variance	12.01	4.431	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9435	0.8877	0.1786	Normal Distribution
Distribution	Kolmogorov-Smirnov D	0.1391	0.2018	0.2384	Normal Distribution
Distribution	D'Agostino Skewness	1.195	2.576	0.2321	Normal Distribution
Distribution	D'Agostino Kurtosis	1.706	2.576	0.0881	Normal Distribution
Distribution	D'Agostino-Pearson K2 Omnibus	4.337	9.21	0.1143	Normal Distribution
Distribution	Anderson-Darling A2 Normality	0.6431	3.878	0.0939	Normal Distribution

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	5	0.8776	0.794	0.9612	0.85	0.828	0.988	0.03012	7.67%	0.0%
56		5	0.9372	0.8612	1.013	0.936	0.858	1.024	0.02737	6.53%	-6.79%
100		5	0.8992	0.7117	1.087	0.908	0.666	1.046	0.06752	16.79%	-2.46%
180		5	0.4608	0.2648	0.6568	0.466	0.278	0.666	0.0706	34.26%	47.49%
320		5	0.3836	-0.1582	0.9254	0.228	0	0.938	0.1951	113.7%	56.29%
560		5	0	0	0	0	0	0	0		100.0%

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Negative Control	0.85	0.988	0.828	0.828	0.894
56		0.91	0.958	0.936	0.858	1.024
100		0.666	0.908	1.016	1.046	0.86
180		0.338	0.556	0.278	0.466	0.666
320		0.228	0.938	0	0	0.752
560		0	0	0	0	0

**CETIS Analytical Report**

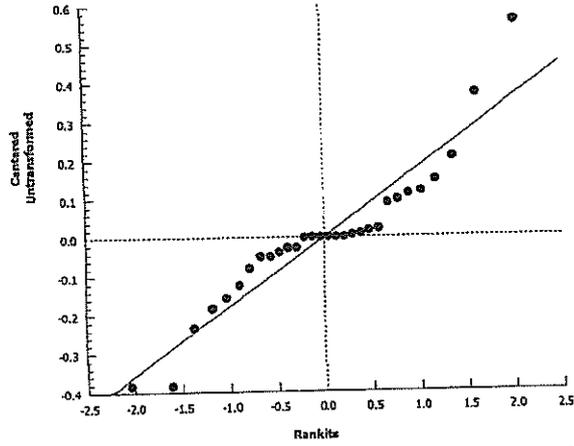
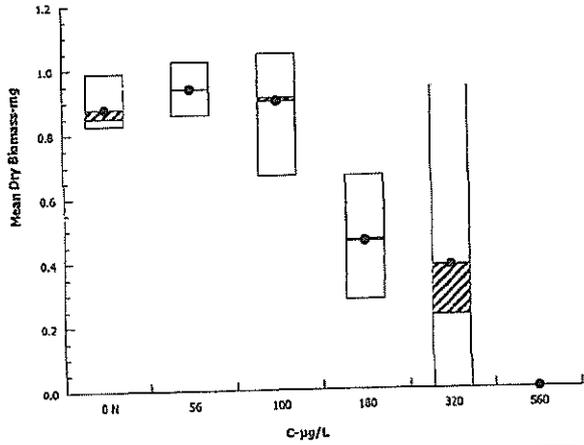
Report Date: 09 Jan-15 16:55 (p 4 of 4)  
Test Code: TOPS121614 | 05-2822-8192

Pacific Topsmelt 7-d Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 11-6081-3397      Endpoint: Mean Dry Biomass-mg      CETIS Version: CETISv1.8.7  
Analyzed: 09 Jan-15 16:55      Analysis: Nonparametric-Control vs Treatments      Official Results: Yes

**Graphics**



**CETIS Analytical Report**

Report Date: 09 Jan-15 16:55 (p 1 of 3)  
 Test Code: TOPS121614 | 05-2822-8192

**Pacific Topsmelt 7-d Survival and Growth Test** Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 11-3674-2838      Endpoint: 7d Survival Rate      CETIS Version: CETISv1.8.7  
 Analyzed: 09 Jan-15 16:55      Analysis: Linear Interpolation (ICPIN)      Official Results: Yes

Sample ID: 09-8210-0889      Code: TOPS121614t      Client: ABC Labs  
 Sample Date: 16 Dec-14 17:30      Material: Copper chloride      Project: REF TOX  
 Receive Date:      Source: Reference Toxicant  
 Sample Age: NA      Station: REF TOX

**Linear Interpolation Options**

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	0	280	Yes	Two-Point Interpolation

**Point Estimates**

Level	µg/L	95% LCL	95% UCL
EC5	71.4	60.09	125.5
EC10	86.8	64.17	129.7
EC15	101.6	68.58	133.8
EC20	112.4	74.92	141.8
EC25	123.3	81.26	149.7
EC40	156	132	182.7
EC50	177.8	156.1	217.9

**7d Survival Rate Summary** Calculated Variate(A/B)

C-µg/L	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B
0	Negative Control	5	0.96	0.8	1	0.04	0.08944	9.32%	0.0%	24	25
56		5	1	1	1	0	0	0.0%	-4.17%	25	25
100		5	0.84	0.6	1	0.07483	0.1673	19.92%	12.5%	21	25
180		5	0.48	0.4	0.6	0.04899	0.1095	22.82%	50.0%	12	25
320		5	0.12	0	0.2	0.04899	0.1095	91.29%	87.5%	3	25
560		5	0	0	0	0	0		100.0%	0	25

**7d Survival Rate Detail**

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Negative Control	1	1	1	0.8	1
56		1	1	1	1	1
100		0.6	0.8	1	1	0.8
180		0.4	0.6	0.4	0.4	0.6
320		0.2	0.2	0	0	0.2
560		0	0	0	0	0

**7d Survival Rate Binomials**

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Negative Control	5/5	5/5	5/5	4/5	5/5
56		5/5	5/5	5/5	5/5	5/5
100		3/5	4/5	5/5	5/5	4/5
180		2/5	3/5	2/5	2/5	3/5
320		1/5	1/5	0/5	0/5	1/5
560		0/5	0/5	0/5	0/5	0/5

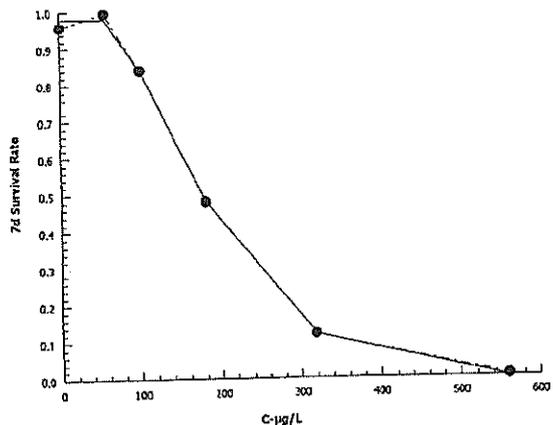
# CETIS Analytical Report

Report Date: 09 Jan-15 16:55 (p 2 of 3)  
Test Code: TOPS121614 | 05-2822-8192

Pacific Topsmelt 7-d Survival and Growth Test Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 11-3674-2838	Endpoint: 7d Survival Rate	CETIS Version: CETISv1.8.7
Analyzed: 09 Jan-15 16:55	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes

## Graphics





# CETIS Measurement Report

Report Date: 09 Jan-15 16:55 (p 1 of 2)  
 Test Code: TOPS121614 | 05-2822-8192

Aquatic Bioassay & Consulting Labs, Inc.

## Pacific Topsmelt 7-d Survival and Growth Test

Batch ID: 00-4606-8122	Test Type: Growth-Survival (7d)	Analyst:
Start Date: 16 Dec-14 17:30	Protocol: EPA/600/R-95/136 (1995)	Diluent: Laboratory Seawater
Ending Date: 23 Dec-14 15:30	Species: Atherinops affinis	Brine: Not Applicable
Duration: 6d 22h	Source: Aquatic Biosystems, CO	Age:
Sample ID: 09-8210-0889	Code: TOPS121614t	Client: ABC Labs
Sample Date: 16 Dec-14 17:30	Material: Copper chloride	Project: REF TOX
Receive Date:	Source: Reference Toxicant	
Sample Age: NA	Station: REF TOX	

Dissolved Oxygen-mg/L											
C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	6.938	6.586	7.289	6.1	7.4	0.1487	0.4207	6.06%	0
56		8	6.913	6.595	7.23	6.1	7.2	0.1342	0.3796	5.49%	0
100		8	6.938	6.597	7.278	6.1	7.4	0.1438	0.4069	5.87%	0
180		8	6.963	6.597	7.328	6.2	7.5	0.1546	0.4373	6.28%	0
320		8	6.988	6.612	7.363	6.2	7.6	0.1586	0.4486	6.42%	0
560		1	7.3			7.3	7.3	0	0	0.0%	0
Overall		41	7.006			6.1	7.6				0 (0%)

pH-Units											
C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	7.525	7.428	7.622	7.3	7.7	0.04119	0.1165	1.55%	0
56		8	7.538	7.494	7.581	7.5	7.6	0.0183	0.05175	0.69%	0
100		8	7.563	7.5	7.625	7.5	7.7	0.0263	0.0744	0.98%	0
180		8	7.563	7.5	7.625	7.5	7.7	0.0263	0.0744	0.98%	0
320		8	7.55	7.505	7.595	7.5	7.6	0.0189	0.05345	0.71%	0
560		1	7.5			7.5	7.5	0	0	0.0%	0
Overall		41	7.54			7.3	7.7				0 (0%)

Salinity-ppt											
C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	34	34	34	34	34	0	0	0.0%	0
56		8	34	34	34	34	34	0	0	0.0%	0
100		8	34	34	34	34	34	0	0	0.0%	0
180		8	34	34	34	34	34	0	0	0.0%	0
320		8	34	34	34	34	34	0	0	0.0%	0
560		1	34			34	34	0	0	0.0%	0
Overall		41	34			34	34				0 (0%)

Temperature-°C											
C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	21	21	21	21	21	0	0	0.0%	0
56		8	21	21	21	21	21	0	0	0.0%	0
100		8	21	21	21	21	21	0	0	0.0%	0
180		8	21	21	21	21	21	0	0	0.0%	0
320		8	21	21	21	21	21	0	0	0.0%	0
560		1	21			21	21	0	0	0.0%	0
Overall		41	21			21	21				0 (0%)

# CETIS Measurement Report

Report Date: 09 Jan-15 16:55 (p 2 of 2)  
Test Code: TOPS121614 | 05-2822-8192

## Pacific Topsmelt 7-d Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

### Dissolved Oxygen-mg/L

C-µg/L	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	7	7	7.2	7.3	6.6	7.4	6.9	6.1
56		7.2	7.1	7.2	7.2	6.7	7	6.8	6.1
100		7.2	7.4	7.1	7.2	6.7	7	6.8	6.1
180		7.4	7.5	7.2	7.2	6.7	6.8	6.7	6.2
320		7.3	7.6	7.3	7.2	6.7	6.9	6.7	6.2
560		7.3							

### pH-Units

C-µg/L	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	7.5	7.6	7.6	7.7	7.5	7.3	7.5	7.5
56		7.5	7.6	7.6	7.6	7.5	7.5	7.5	7.5
100		7.5	7.6	7.6	7.7	7.6	7.5	7.5	7.5
180		7.5	7.6	7.6	7.7	7.6	7.5	7.5	7.5
320		7.5	7.6	7.6	7.6	7.6	7.5	7.5	7.5
560		7.5							

### Salinity-ppt

C-µg/L	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	34	34	34	34	34	34	34	34
56		34	34	34	34	34	34	34	34
100		34	34	34	34	34	34	34	34
180		34	34	34	34	34	34	34	34
320		34	34	34	34	34	34	34	34
560		34							

### Temperature-°C

C-µg/L	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	21	21	21	21	21	21	21	21
56		21	21	21	21	21	21	21	21
100		21	21	21	21	21	21	21	21
180		21	21	21	21	21	21	21	21
320		21	21	21	21	21	21	21	21
560		21							



**CHRONIC KELP GERMINATION & GROWTH BIOASSAY**

DATE: 16 December - 14

STANDARD TOXICANT: Copper Chloride

ENDPOINT: GERMINATION

NOEC = 100.00 ug/l

EC25 = 119.40 ug/l

EC50 = 139.60 ug/l

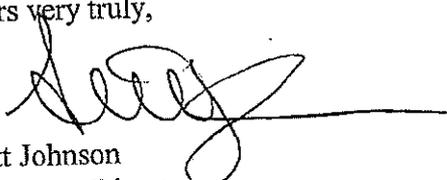
ENDPOINT: GROWTH-LENGTH

NOEC = 32.00 ug/l

IC25 = 91.54 ug/l

IC50 = 124.20 ug/l

Yours very truly,



Scott Johnson  
Laboratory Director

**CETIS Summary Report**

Report Date: 16 Jan-15 11:23 (p 1 of 2)  
 Test Code: KLP121614 | 04-0247-9253

**Macrocystis Germination and Germ Tube Growth Test**

Aquatic Bioassay & Consulting Labs, Inc.

Batch ID: 14-7132-2511	Test Type: Growth-Germination	Analyst:
Start Date: 16 Dec-14 15:30	Protocol: EPA/600/R-95/136 (1995)	Diluent: Laboratory Seawater
Ending Date: 18 Dec-14 16:00	Species: Macrocystis pyrifera	Brine: Not Applicable
Duration: 48h	Source: David Gutoff	Age:
Sample ID: 10-9167-2946	Code: KLP121614	Client: Internal Lab
Sample Date: 16 Dec-14 15:30	Material: Copper chloride	Project:
Receive Date:	Source: Reference Toxicant	
Sample Age: NA	Station: REF TOX	

**Comparison Summary**

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
11-3977-2826	Germination Rate	100	180	134.2	3.48%		Dunnett Multiple Comparison Test
18-8471-4830	Mean Length	32	100	56.57	3.25%		Dunnett Multiple Comparison Test

**Point Estimate Summary**

Analysis ID	Endpoint	Level	µg/L	95% LCL	95% UCL	TU	Method
17-0244-2846	Germination Rate	EC5	103.2	100.3	104.4		Linear Interpolation (ICPIN)
		EC10	107.3	104.5	108.4		
		EC15	111.3	108.7	112.4		
		EC20	115.3	112.9	116.3		
		EC25	119.4	117.1	120.3		
		EC40	131.5	129.7	132.2		
09-5749-1246	Mean Length	IC5	40.53	34.05	45.23		Linear Interpolation (ICPIN)
		IC10	53.28	48.04	57.67		
		IC15	66.04	60.56	70.6		
		IC20	78.79	72.74	83.85		
		IC25	91.54	84.63	97.71		
		IC40	113	110.1	115.4		
IC50	124.2	121.8	126.2				

**Test Acceptability**

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
11-3977-2826	Germination Rate	Control Resp	0.924	0.7 - NL	Yes	Passes Acceptability Criteria
17-0244-2846	Germination Rate	Control Resp	0.924	0.7 - NL	Yes	Passes Acceptability Criteria
09-5749-1246	Mean Length	Control Resp	14.34	10 - NL	Yes	Passes Acceptability Criteria
18-8471-4830	Mean Length	Control Resp	14.34	10 - NL	Yes	Passes Acceptability Criteria
18-8471-4830	Mean Length	NOEL	32	NL - 35	No	Passes Acceptability Criteria
11-3977-2826	Germination Rate	PMSD	0.03478	NL - 0.2	No	Passes Acceptability Criteria
18-8471-4830	Mean Length	PMSD	0.03247	NL - 0.2	No	Passes Acceptability Criteria

# CETIS Summary Report

Report Date: 16 Jan-15 11:23 (p 2 of 2)  
 Test Code: KLP121614 | 04-0247-9253

## Macrocystis Germination and Germ Tube Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

### Germination Rate Summary

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	5	0.924	0.9032	0.9448	0.91	0.95	0.007483	0.01673	1.81%	0.0%
5.6		5	0.928	0.9224	0.9336	0.92	0.93	0.002	0.004472	0.48%	-0.43%
10		5	0.92	0.8937	0.9463	0.9	0.95	0.009487	0.02121	2.31%	0.43%
18		5	0.938	0.9141	0.9619	0.91	0.96	0.008602	0.01924	2.05%	-1.52%
32		5	0.92	0.9076	0.9324	0.91	0.93	0.004472	0.01	1.09%	0.43%
100		5	0.918	0.8803	0.9557	0.9	0.97	0.01356	0.03033	3.3%	0.65%
180		5	0	0	0	0	0	0	0		100.0%
320		5	0	0	0	0	0	0	0		100.0%

### Mean Length Summary

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	5	14.34	14.02	14.66	14.1	14.7	0.1166	0.2608	1.82%	0.0%
5.6		5	14.62	14.17	15.07	14.1	15.1	0.1625	0.3633	2.49%	-1.95%
10		5	14.1	13.81	14.39	13.9	14.4	0.1049	0.2345	1.66%	1.67%
18		5	14.26	13.92	14.6	14	14.7	0.1208	0.2702	1.9%	0.56%
32		5	14.36	13.87	14.85	13.7	14.7	0.1778	0.3975	2.77%	-0.14%
100		5	10.38	9.993	10.77	10	10.7	0.1393	0.3114	3.0%	27.62%
180		5	0	0	0	0	0	0	0		100.0%
320		5	0	0	0	0	0	0	0		100.0%

### Germination Rate Detail

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Negative Control	0.93	0.95	0.91	0.91	0.92
5.6		0.93	0.93	0.93	0.92	0.93
10		0.9	0.9	0.95	0.93	0.92
18		0.91	0.96	0.93	0.94	0.95
32		0.91	0.93	0.92	0.93	0.91
100		0.92	0.9	0.9	0.97	0.9
180		0	0	0	0	0
320		0	0	0	0	0

### Mean Length Detail

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Negative Control	14.1	14.1	14.3	14.7	14.5
5.6		14.1	15.1	14.5	14.7	14.7
10		13.9	14	14.3	14.4	13.9
18		14.2	14.1	14.3	14	14.7
32		13.7	14.7	14.6	14.3	14.5
100		10.7	10	10.5	10.1	10.6
180		0	0	0	0	0
320		0	0	0	0	0

### Germination Rate Binomials

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Negative Control	93/100	95/100	91/100	91/100	92/100
5.6		93/100	93/100	93/100	92/100	93/100
10		90/100	90/100	95/100	93/100	92/100
18		91/100	96/100	93/100	94/100	95/100
32		91/100	93/100	92/100	93/100	91/100
100		92/100	90/100	90/100	97/100	90/100
180		0/100	0/100	0/100	0/100	0/100
320		0/100	0/100	0/100	0/100	0/100



**CETIS Analytical Report**

Report Date: 16 Jan-15 11:23 (p 2 of 4)  
 Test Code: KLP121614 | 04-0247-9253

**Macrocystis Germination and Germ Tube Growth Test** Aquatic Bioassay & Consulting Labs, Inc.

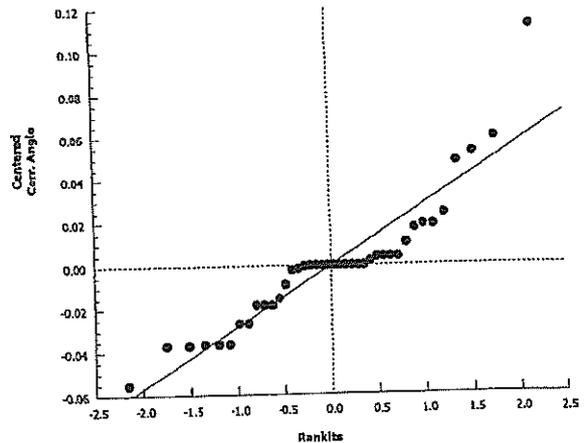
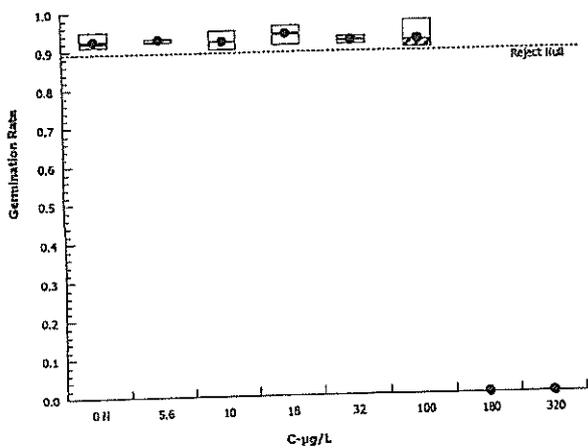
Analysis ID: 11-3977-2826      Endpoint: Germination Rate      CETIS Version: CETISv1.8.7  
 Analyzed: 16 Jan-15 11:23      Analysis: Parametric-Control vs Treatments      Official Results: Yes

Germination Rate Detail						
C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Negative Control	0.93	0.95	0.91	0.91	0.92
5.6		0.93	0.93	0.93	0.92	0.93
10		0.9	0.9	0.95	0.93	0.92
18		0.91	0.96	0.93	0.94	0.95
32		0.91	0.93	0.92	0.93	0.91
100		0.92	0.9	0.9	0.97	0.9
180		0	0	0	0	0
320		0	0	0	0	0

Angular (Corrected) Transformed Detail						
C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Negative Control	1.303	1.345	1.266	1.266	1.284
5.6		1.303	1.303	1.303	1.284	1.303
10		1.249	1.249	1.345	1.303	1.284
18		1.266	1.369	1.303	1.323	1.345
32		1.266	1.303	1.284	1.303	1.266
100		1.284	1.249	1.249	1.397	1.249
180		0.05002	0.05002	0.05002	0.05002	0.05002
320		0.05002	0.05002	0.05002	0.05002	0.05002

Germination Rate Binomials						
C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Negative Control	93/100	95/100	91/100	91/100	92/100
5.6		93/100	93/100	93/100	92/100	93/100
10		90/100	90/100	95/100	93/100	92/100
18		91/100	96/100	93/100	94/100	95/100
32		91/100	93/100	92/100	93/100	91/100
100		92/100	90/100	90/100	97/100	90/100
180		0/100	0/100	0/100	0/100	0/100
320		0/100	0/100	0/100	0/100	0/100

**Graphics**



# CETIS Analytical Report

Report Date: 16 Jan-15 11:23 (p 3 of 4)  
 Test Code: KLP121614 | 04-0247-9253

## Macrocystis Germination and Germ Tube Growth Test Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 18-8471-4830	Endpoint: Mean Length	CETIS Version: CETISv1.8.7
Analyzed: 16 Jan-15 11:23	Analysis: Parametric-Control vs Treatments	Official Results: Yes
Sample ID: 10-9167-2946	Code: KLP121614	Client: Internal Lab
Sample Date: 16 Dec-14 15:30	Material: Copper chloride	Project:
Receive Date:	Source: Reference Toxicant	
Sample Age: NA	Station: REF TOX	

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Untransformed	NA	C > T	NA	NA	3.25%	32	100	56.57	

### Dunnett Multiple Comparison Test

Control	vs	C-µg/L	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Negative Control		5.6	-1.42	2.362	0.466	8	0.9952	CDF	Non-Significant Effect
		10	1.217	2.362	0.466	8	0.3273	CDF	Non-Significant Effect
		18	0.4058	2.362	0.466	8	0.6872	CDF	Non-Significant Effect
		32	-0.1014	2.362	0.466	8	0.8616	CDF	Non-Significant Effect
		100*	20.09	2.362	0.466	8	<0.0001	CDF	Significant Effect

### ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	65.92166	13.18433	5	135.7	<0.0001	Significant Effect
Error	2.331999	0.09716664	24			
Total	68.25366		29			

### Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	1.535	15.09	0.9090	Equal Variances
Variances	Mod Levene Equality of Variance	0.1643	4.248	0.9725	Equal Variances
Variances	Levene Equality of Variance	0.2958	3.895	0.9105	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9782	0.9031	0.7761	Normal Distribution
Distribution	Kolmogorov-Smirnov D	0.07774	0.1853	1.0000	Normal Distribution
Distribution	D'Agostino Skewness	0.7562	2.576	0.4496	Normal Distribution
Distribution	D'Agostino Kurtosis	0.3032	2.576	0.7617	Normal Distribution
Distribution	D'Agostino-Pearson K2 Omnibus	0.6637	9.21	0.7176	Normal Distribution
Distribution	Anderson-Darling A2 Normality	0.2286	3.878	0.8418	Normal Distribution

### Mean Length Summary

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	5	14.34	14.02	14.66	14.3	14.1	14.7	0.1166	1.82%	0.0%
5.6		5	14.62	14.17	15.07	14.7	14.1	15.1	0.1625	2.49%	-1.95%
10		5	14.1	13.81	14.39	14	13.9	14.4	0.1049	1.66%	1.67%
18		5	14.26	13.92	14.6	14.2	14	14.7	0.1208	1.9%	0.56%
32		5	14.36	13.87	14.85	14.5	13.7	14.7	0.1778	2.77%	-0.14%
100		5	10.38	9.993	10.77	10.5	10	10.7	0.1393	3.0%	27.62%
180		5	0	0	0	0	0	0	0		100.0%
320		5	0	0	0	0	0	0	0		100.0%

### Mean Length Detail

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Negative Control	14.1	14.1	14.3	14.7	14.5
5.6		14.1	15.1	14.5	14.7	14.7
10		13.9	14	14.3	14.4	13.9
18		14.2	14.1	14.3	14	14.7
32		13.7	14.7	14.6	14.3	14.5
100		10.7	10	10.5	10.1	10.6
180		0	0	0	0	0
320		0	0	0	0	0



**CETIS Analytical Report**

Report Date: 16 Jan-15 11:23 (p 1 of 4)  
 Test Code: KLP121614 | 04-0247-9253

**Macrocystis Germination and Germ Tube Growth Test** Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 17-0244-2846 Endpoint: Germination Rate CETIS Version: CETISv1.8.7  
 Analyzed: 16 Jan-15 11:23 Analysis: Linear Interpolation (ICPIN) Official Results: Yes

Sample ID: 10-9167-2946 Code: KLP121614 Client: Internal Lab  
 Sample Date: 16 Dec-14 15:30 Material: Copper chloride Project:  
 Receive Date: Source: Reference Toxicant  
 Sample Age: NA Station: REF TOX

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	0	280	Yes	Two-Point Interpolation

Point Estimates			
Level	µg/L	95% LCL	95% UCL
EC5	103.2	100.3	104.4
EC10	107.3	104.5	108.4
EC15	111.3	108.7	112.4
EC20	115.3	112.9	116.3
EC25	119.4	117.1	120.3
EC40	131.5	129.7	132.2
EC50	139.6	138.1	140.2

Germination Rate Summary			Calculated Variate(A/B)									
C-µg/L	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Negative Control	5	0.924	0.91	0.95	0.007483	0.01673	1.81%	0.0%	462	500	
5.6		5	0.928	0.92	0.93	0.001999	0.00447	0.48%	-0.43%	464	500	
10		5	0.92	0.9	0.95	0.009487	0.02121	2.31%	0.43%	460	500	
18		5	0.938	0.91	0.96	0.008602	0.01924	2.05%	-1.52%	469	500	
32		5	0.92	0.91	0.93	0.004472	0.009999	1.09%	0.43%	460	500	
100		5	0.918	0.9	0.97	0.01356	0.03033	3.3%	0.65%	459	500	
180		5	0	0	0	0	0		100.0%	0	500	
320		5	0	0	0	0	0		100.0%	0	500	

Germination Rate Detail						
C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Negative Control	0.93	0.95	0.91	0.91	0.92
5.6		0.93	0.93	0.93	0.92	0.93
10		0.9	0.9	0.95	0.93	0.92
18		0.91	0.96	0.93	0.94	0.95
32		0.91	0.93	0.92	0.93	0.91
100		0.92	0.9	0.9	0.97	0.9
180		0	0	0	0	0
320		0	0	0	0	0

Germination Rate Binomials						
C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Negative Control	93/100	95/100	91/100	91/100	92/100
5.6		93/100	93/100	93/100	92/100	93/100
10		90/100	90/100	95/100	93/100	92/100
18		91/100	96/100	93/100	94/100	95/100
32		91/100	93/100	92/100	93/100	91/100
100		92/100	90/100	90/100	97/100	90/100
180		0/100	0/100	0/100	0/100	0/100
320		0/100	0/100	0/100	0/100	0/100

CETIS Analytical Report

Report Date: 16 Jan-15 11:23 (p 2 of 4)  
Test Code: KLP121614 | 04-0247-9253

Macrocystis Germination and Germ Tube Growth Test

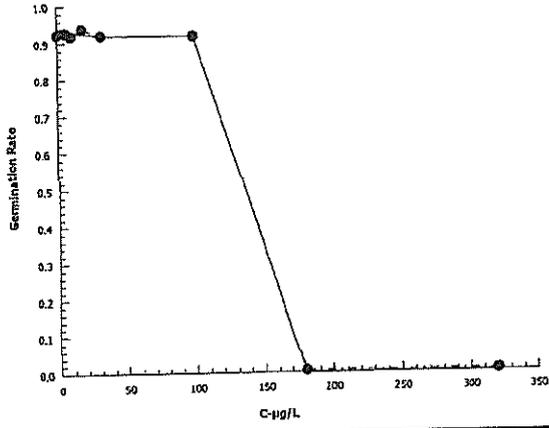
Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 17-0244-2846  
Analyzed: 16 Jan-15 11:23

Endpoint: Germination Rate  
Analysis: Linear Interpolation (ICPIN)

CETIS Version: CETISv1.8.7  
Official Results: Yes

Graphics



**CETIS Analytical Report**

Report Date: 16 Jan-15 11:23 (p 3 of 4)  
 Test Code: KLP121614 | 04-0247-9253

**Macrocystis Germination and Germ Tube Growth Test** Aquatic Bioassay & Consulting Labs, Inc.

analysis ID: 09-5749-1246      Endpoint: Mean Length      CETIS Version: CETISv1.8.7  
 Analyzed: 16 Jan-15 11:23      Analysis: Linear Interpolation (ICPIN)      Official Results: Yes

Sample ID: 10-9167-2946      Code: KLP121614      Client: Internal Lab  
 Sample Date: 16 Dec-14 15:30      Material: Copper chloride      Project:  
 Receive Date:      Source: Reference Toxicant  
 Sample Age: NA      Station: REF TOX

**Linear Interpolation Options**

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1996107	280	Yes	Two-Point Interpolation

**Point Estimates**

Level	µg/L	95% LCL	95% UCL
IC5	40.53	34.05	45.23
IC10	53.28	48.04	57.67
IC15	66.04	60.56	70.6
IC20	78.79	72.74	83.85
IC25	91.54	84.63	97.71
IC40	113	110.1	115.4
IC50	124.2	121.8	126.2

**Mean Length Summary** Calculated Variate

C-µg/L	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	5	14.34	14.1	14.7	0.1166	0.2608	1.82%	0.0%
5.6		5	14.62	14.1	15.1	0.1625	0.3633	2.49%	-1.95%
10		5	14.1	13.9	14.4	0.1049	0.2345	1.66%	1.67%
18		5	14.26	14	14.7	0.1208	0.2702	1.9%	0.56%
32		5	14.36	13.7	14.7	0.1778	0.3975	2.77%	-0.14%
100		5	10.38	10	10.7	0.1393	0.3114	3.0%	27.62%
180		5	0	0	0	0	0		100.0%
320		5	0	0	0	0	0		100.0%

**Mean Length Detail**

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Negative Control	14.1	14.1	14.3	14.7	14.5
5.6		14.1	15.1	14.5	14.7	14.7
10		13.9	14	14.3	14.4	13.9
18		14.2	14.1	14.3	14	14.7
32		13.7	14.7	14.6	14.3	14.5
100		10.7	10	10.5	10.1	10.6
180		0	0	0	0	0
320		0	0	0	0	0

# CETIS Analytical Report

Report Date: 16 Jan-15 11:23 (p 4 of 4)  
Test Code: KLP121614 | 04-0247-9253

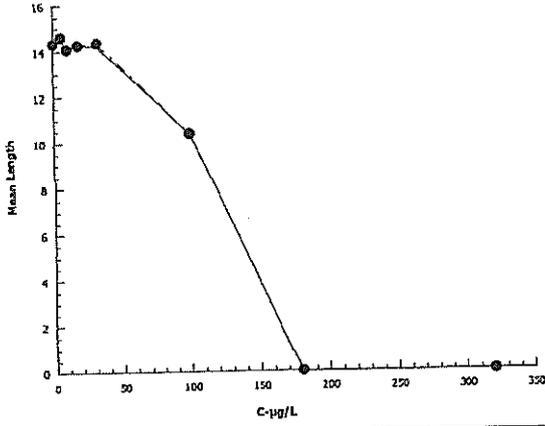
## Macrocystis Germination and Germ Tube Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 09-5749-1246      Endpoint: Mean Length  
Analyzed: 16 Jan-15 11:23      Analysis: Linear Interpolation (ICPIN)

CETIS Version: CETISv1.8.7  
Official Results: Yes

### Graphics



# CETIS Measurement Report

Report Date: 16 Jan-15 11:23 (p 1 of 2)  
 Test Code: KLP121614 | 04-0247-9253

## Macrocystis Germination and Germ Tube Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Batch ID: 14-7132-2511	Test Type: Growth-Germination	Analyst:
Start Date: 16 Dec-14 15:30	Protocol: EPA/600/R-95/136 (1995)	Diluent: Laboratory Seawater
Ending Date: 18 Dec-14 16:00	Species: Macrocystis pyrifera	Brine: Not Applicable
Duration: 48h	Source: David Guttoff	Age:
Sample ID: 10-9167-2946	Code: KLP121614	Client: Internal Lab
Sample Date: 16 Dec-14 15:30	Material: Copper chloride	Project:
Receive Date:	Source: Reference Toxicant	
Sample Age: NA	Station: REF TOX	

### Dissolved Oxygen-mg/L

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	2	6.5	2.688	10.31	6.2	6.8	0.3	0.4243	6.53%	0
5.6		2	6.45	2.003	10.9	6.1	6.8	0.35	0.495	7.67%	0
10		2	6.5	3.959	9.041	6.3	6.7	0.2	0.2828	4.35%	0
18		2	6.55	2.103	11	6.2	6.9	0.35	0.495	7.56%	0
32		2	6.45	2.003	10.9	6.1	6.8	0.35	0.495	7.67%	0
100		2	6.55	4.644	8.456	6.4	6.7	0.15	0.2121	3.24%	0
180		2	6.5	2.688	10.31	6.2	6.8	0.3	0.4243	6.53%	0
320		2	6.3	3.759	8.841	6.1	6.5	0.2	0.2828	4.49%	0
Overall		16	6.475			6.1	6.9				0 (0%)

### pH-Units

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	2	7.9	7.884	7.916	7.9	7.9	0	0	0.0%	0
5.6		2	7.9	7.884	7.916	7.9	7.9	0	0	0.0%	0
10		2	7.9	7.884	7.916	7.9	7.9	0	0	0.0%	0
18		2	7.9	7.884	7.916	7.9	7.9	0	0	0.0%	0
32		2	7.9	7.884	7.916	7.9	7.9	0	0	0.0%	0
100		2	7.9	7.884	7.916	7.9	7.9	0	0	0.0%	0
180		2	7.9	7.884	7.916	7.9	7.9	0	0	0.0%	0
320		2	7.9	7.884	7.916	7.9	7.9	0	0	0.0%	0
Overall		16	7.9			7.9	7.9				0 (0%)

### Salinity-ppt

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	2	34	34	34	34	34	0	0	0.0%	0
5.6		2	34	34	34	34	34	0	0	0.0%	0
10		2	34	34	34	34	34	0	0	0.0%	0
18		2	34	34	34	34	34	0	0	0.0%	0
32		2	34	34	34	34	34	0	0	0.0%	0
100		2	34	34	34	34	34	0	0	0.0%	0
180		2	34	34	34	34	34	0	0	0.0%	0
320		2	34	34	34	34	34	0	0	0.0%	0
Overall		16	34			34	34				0 (0%)

### Temperature-°C

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	2	14.65	14.02	15.28	14.6	14.7	0.04997	0.07067	0.48%	0
5.6		2	14.65	14.02	15.28	14.6	14.7	0.04997	0.07067	0.48%	0
10		2	14.65	14.02	15.28	14.6	14.7	0.04997	0.07067	0.48%	0
18		2	14.65	14.02	15.28	14.6	14.7	0.04997	0.07067	0.48%	0
32		2	14.65	14.02	15.28	14.6	14.7	0.04997	0.07067	0.48%	0
100		2	14.65	14.02	15.28	14.6	14.7	0.04997	0.07067	0.48%	0
180		2	14.65	14.02	15.28	14.6	14.7	0.04997	0.07067	0.48%	0
320		2	14.65	14.02	15.28	14.6	14.7	0.04997	0.07067	0.48%	0
Overall		16	14.65			14.6	14.7				0 (0%)



## Attachment 6

# Drilling Mud and Well Treatment Completion Fluids Chemical Inventories

## Attachment 6

# Drilling Mud Chemical Inventory

**ATTACHMENT 6**

**DRILLING MUD CHEMICAL INVENTORY**

**WELL A-23**

Mud Component Additive	Total Pounds	%	ppm
Amber Guard	1824	0.3%	3,236
Cal-Carb 200	15550	2.8%	27,589
Cal-Carb 80	650	0.1%	1,153
Drispac Super Lo	6550	1.2%	11,621
Geozan	9250	1.64%	16,412
KCl	136800	24.27%	242,715
KOH	4550	0.81%	8,073
Polytek +	58250	10.33%	103,349
Soda Ash	800	0.14%	1,419
CaCl	38000	6.74%	67,421
Barite	280000	49.68%	496,785
NaOH	1900	0.34%	3,371
Gel	6300	1.12%	11,178
Dril Star	3200	0.6%	5,678

Company:     Beta  
 Platform:     Ellen  
 Well #:     A-23 ST-1

**NPDES Permit CAG 2800000**

**Well Treatment Completion and Workover Fluids Chemical Inventory**

The following information is needed if there is any use of WTCFs on the platform. If there are no associated discharges, indicate below:

Date:	Job Type: (see definitions below)	Estimate Volume (include seawater or brine) (barrels)	Chemical (include seawater or brine) (name)	Conc. (ppm; #/bbl; Gal/bbl; or % ) (circle unit)	Estimate  Discharge (if no Discharge enter "0") volume (bbls)	Comments:
11/12/2014	Completion	636	CaCl Brine	189000	0	(Note if commingled with produced Water)

Operator / Drilling Engineer signature \_\_\_\_\_

"Well completion fluids" shall refer to salt solutions, weighted brines, polymers, and various additives used to prevent damage to the well bore during operations which prepare the drilled well for hydrocarbon production. (40 CFR Part 435.11)

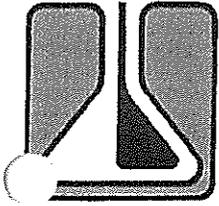
"Well treatment fluids" shall refer to any fluid used to restore or improve productivity by chemically or physically altering hydrocarbon-bearing strata after a well has been drilled. (40 CFR Part 435.11)

"Workover fluids" shall refer to salt solutions, weighted brines, polymers, or other specialty additives used in a producing well to allow for maintenance, repair or abandonment procedures. (40 CFR Part 435.11)

# Attachment 7

## Barite Metals Analysis for Cadmium / Mercury

(Well A-23)



ZALCO LABORATORIES, INC.  
Analytical & Consulting Services

4309 Armour Avenue  
Bakersfield, California 93308

(661) 395-0539  
FAX (661) 395-3069

July 17, 2014

Aaron Phillips  
GEO Drilling Fluids  
1431 Union Avenue  
Bakersfield, CA 93305

TEL: (530) 908-0420  
FAX: (661) 325-5648

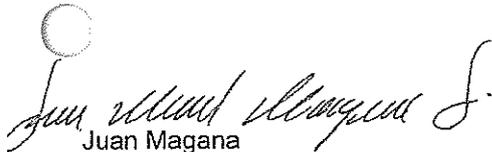
Project ID:  
RE: 1407072

Dear Aaron Phillips:

Zalco Laboratories, Inc. received 3 samples on 7/7/2014 for the analyses presented in the following report.

We appreciate your business and look forward to serving you in the future. Please feel free to call our office if you have any questions regarding these test results.

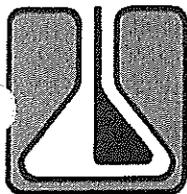
Sincerely,



Juan Magana  
Project Manager  
CC:

N<sup>o</sup> Ion Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic  
L<sub>1</sub> Procedure MCL: Maximum Contaminant Level \*: See Case Narrative  
The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Note: Samples analyzed for regulatory purposes should be put on ice immediately after sampling and received by the laboratory at temperatures between 0-6°C. Microbiological analysis requires samples to be at least 4-10°C when received at the laboratory. For additional information regarding the limitations of the method(s) referred to, please call us at 661-395-0539.



**ZALCO LABORATORIES, INC.**

Analytical & Consulting Services

4309 Armour Avenue  
Bakersfield, California 93308

(661) 395-0539  
FAX (661) 395-3069

GEO Drilling Fluids 1431 Union Avenue Bakersfield, CA 93305	Project: Master Project #: Attention: Aaron Phillips	Work Order No.: 1407072 Reported: 07/17/2014 Received: 07/07/2014 12:35
---	--	---

Lab Sample ID: 1407072-01 Client Sample ID: Anaconda 1445-13C	Collected By: Date Collected: 7/3/2014 12:00:00PM
--	--

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>Metals</b>								
Cadmium	<0.50	0.50	mg/kg		SW846 6010B	7/8/14	7/9/14	SS
Lead	<2.5	2.5	mg/kg		SW846 6010B	7/8/14	7/9/14	SS
Mercury	<0.050	0.050	mg/kg		SW846 7471A	7/9/14	7/9/14	SS

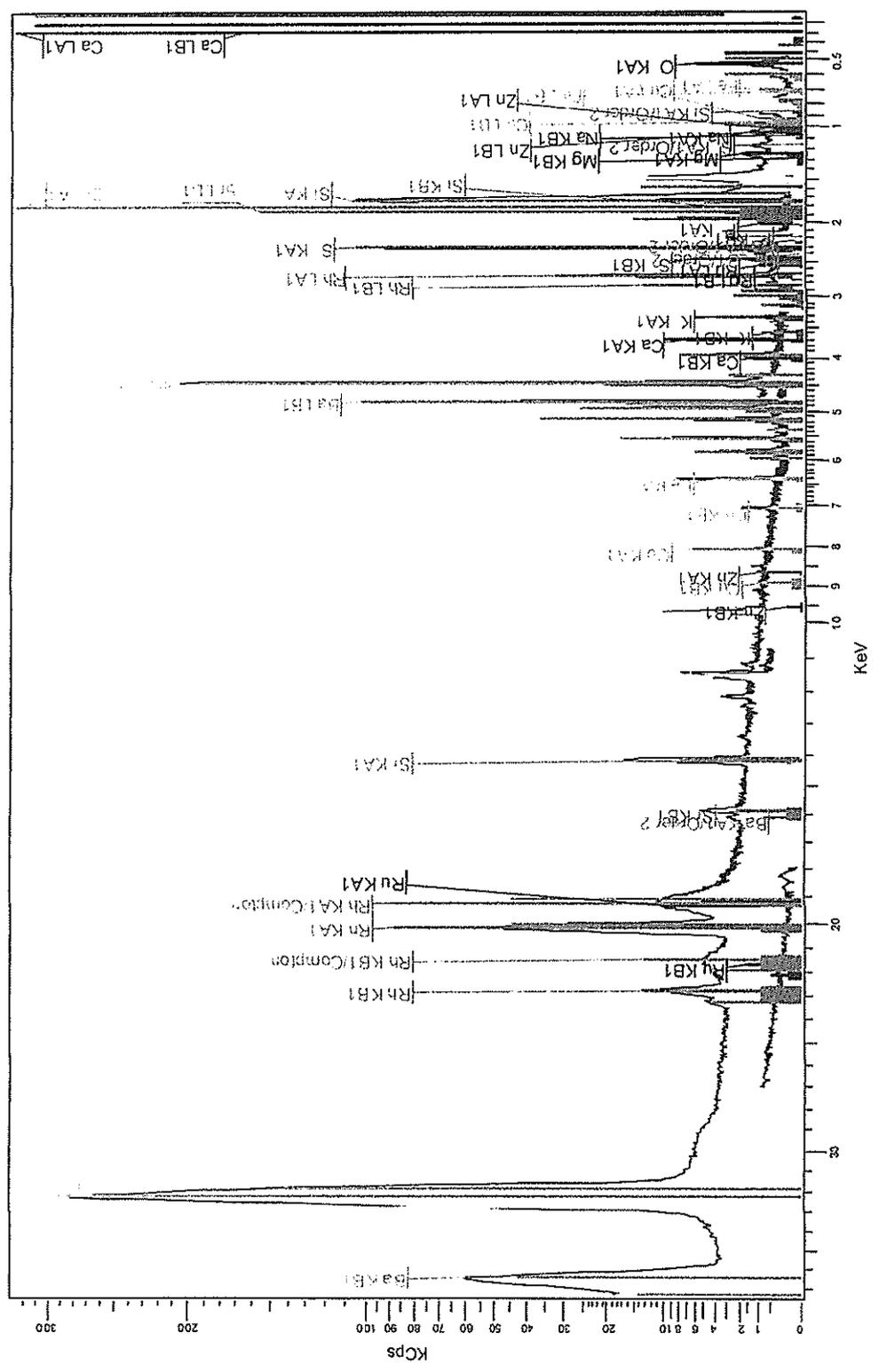
NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative  
results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Note: Samples analyzed for regulatory purposes should be put on ice immediately after sampling and received by the laboratory at temperatures between 0-6°C. Microbiological analysis requires samples to be at least 4-10°C when received at the laboratory. For additional information regarding the limitations of the method(s) referred to, please call us at 661-395-0539.



Sample ID: Zalco 1407072-01  
Sample Medium: Pressed Powder

Qualitative scan identified the follow elements: Ba, Cu, Fe, Ca, K, Na, Mg, Sr, Zn, Al, Si, P, S, O





Sample ID: Zalco1407072-01

Standardless Calibration Quantitative Results

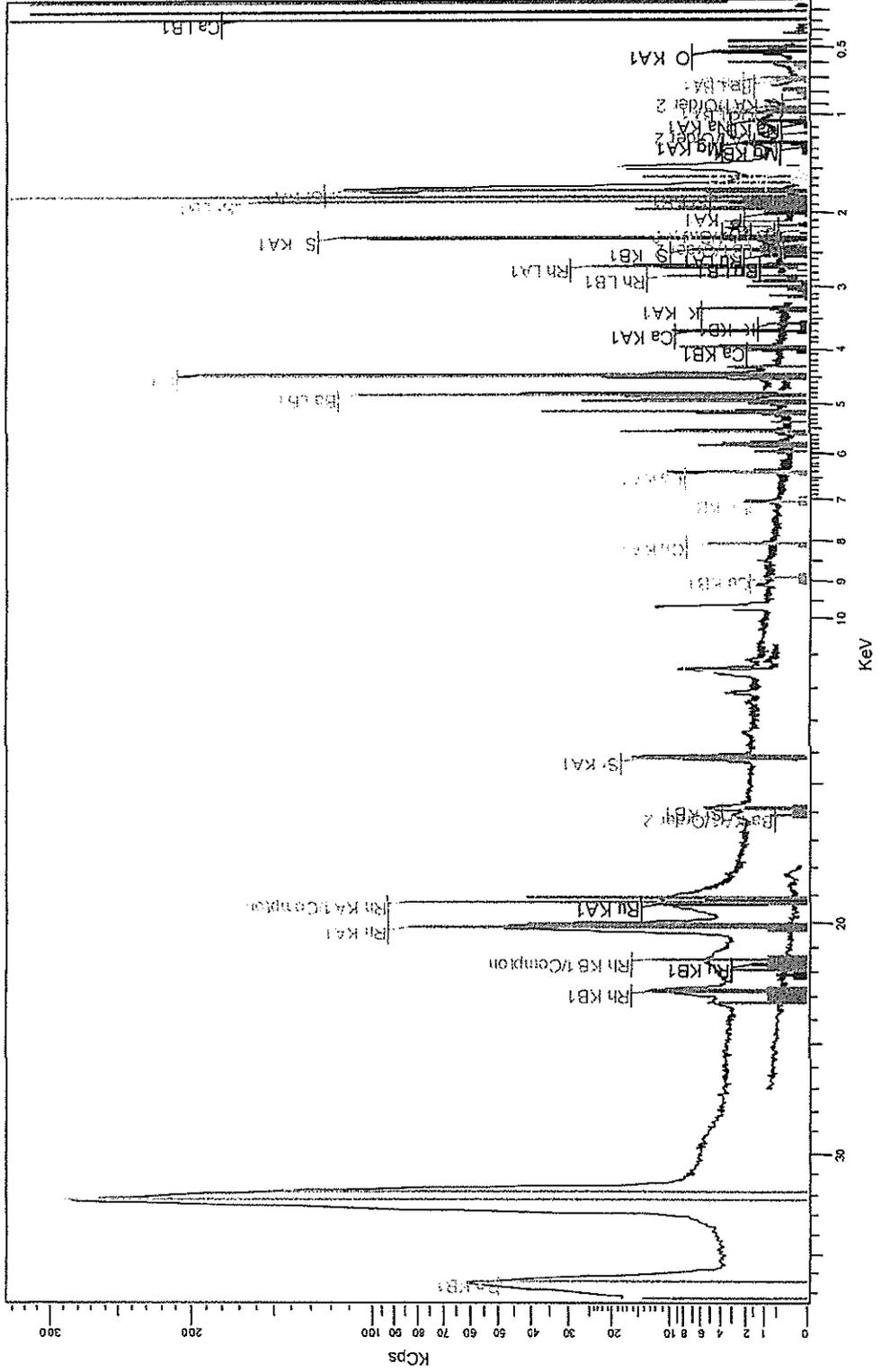
Formula	Z	Concentration	Status	Line I	Net int.	Calc. concentration	Stat. error	LLD
Ba	56	62.64	XRF 2	Ba KAl-HS-Min	272.6	70.02	0.20%	0.13%
S	16	11.54	XRF 1	S KAl-HS-Min	99.23	11.54	0.33%	138.6 PPM
Si	14	9.912	XRF 1	Si KAl-HS-Min	34.35	9.912	0.56%	146.0 PPM
Al	13	2.98	XRF 1	Al KAl-HS-Min	5.809	2.98	1.38%	203.0 PPM
Fe	26	1.95	XRF 1	Fe KAl-HS-Min	8.003	1.95	1.20%	168.6 PPM
Ca	20	0.682	XRF 1	Ca KAl-HS-Min	7.466	0.682	3.11%	88.6 PPM
Na	11	0.588	XRF 1	Na KAl-HS-Min	0.8447	0.588	5.28%	740.2 PPM
K	19	0.485	XRF 1	K KAl-HS-Min	5.598	0.485	1.44%	78.3 PPM
Sr	38	0.419	XRF 1	Sr KAl-HS-Min	14.57	0.419	0.95%	57.8 PPM
Mg	12	0.29	XRF 1	Mg KAl-HS-Min	1.122	0.29	4.68%	332.0 PPM
P	15	0.153	XRF 1	P KAl-HS-Min	0.8218	0.153	4.18%	128.9 PPM
Cu	29	0.028	XRF 1	Cu KAl-HS-Min	0.6352	0.028	6.96%	70.9 PPM
*Zn	30	0	Not detected	Zn KAl-HS-Min	0.2639	0.009	16.00%	62.1 PPM
O	8		Added	O KAl	5.789	93.9	1.40%	1.84%
Au	79	0.46	Sample Mask	Au LAl-HS-Min	9.618	0.46	1.15%	115.8 PPM
Rh Compton	45		Compton peak	Rh KAl-HS/Comp	10.97	0.625	1.74%	
Rh Rayleigh	45		Rayleigh peak	Rh KAl-HS-Mim/NoFil	44.84	0.461	0.53%	

\*Concentrations for Zn were below detection limits.



Sample ID: Zalco 1407072-02  
Sample Medium: Pressed Powder

Qualitative scan identified the follow elements: Ba, Cu, Fe, Ca, K, Na, Mg, Sr, Al, Si, P, S, O

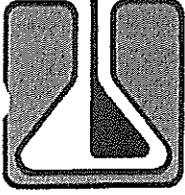




Sample ID: Zalco1407072-02

Standardless Calibration Quantitative Results

Formula	Z	Concentration	Status	Line 1	Net int.	Calc. concentration	Stat. error	LLD
Ba	56	63.24	XRF 2	Ba KAl-HS-Min	273.9	70.27	0.20%	0.13%
Na	11	0.754	XRF 1	Na KAl-HS-Min	1.067	0.754	4.44%	761.4 PPM
Mg	12	0.353	XRF 1	Mg KAl-HS-Min	1.347	0.353	4.09%	342.5 PPM
Al	13	4.16	XRF 1	Al KAl-HS-Min	8.006	4.16	1.17%	206.6 PPM
Si	14	10.67	XRF 1	Si KAl-HS-Min	36.32	10.67	0.54%	149.0 PPM
P	15	0.131	XRF 1	P KAl-HS-Min	0.6971	0.131	4.70%	138.8 PPM
S	16	12.72	XRF 1	S KAl-HS-Min	107.9	12.72	0.32%	139.9 PPM
K	19	0.486	XRF 1	K KAl-HS-Min	5.493	0.486	1.46%	81.7 PPM
Ca	20	0.621	XRF 1	Ca KAl-HS-Min	6.684	0.621	3.30%	92.1 PPM
Fe	26	2.35	XRF 1	Fe KAl-HS-Min	9.618	2.35	1.09%	174.4 PPM
Cu	29	0.022	XRF 1	Cu KAl-HS-Min	0.4959	0.022	8.55%	72.4 PPM
Sr	38	0.405	XRF 1	Sr KAl-HS-Min	14.09	0.405	0.97%	59.5 PPM
O	8		Added	O KAl	4.303	64.7	1.63%	1.81%
Au	79	0.521	Sample Mask	Au LA1-HS-Min	11.16	0.521	1.06%	117.8 PPM
Rh Rayleigh	45		Rayleigh peak	Rh KAl-HS-Min/NoFil	45.04	0.458	0.53%	
Rh Compton	45		Compton peak	Rh KAl-HS/Comp	11.26	0.615	1.70%	



**ZALCO LABORATORIES, INC.**  
Analytical & Consulting Services

4309 Armour Avenue  
Bakersfield, California 93308

(661) 395-0539  
FAX (661) 395-3069

GEO Drilling Fluids 1431 Union Avenue Bakersfield, CA 93305	Project: Master Project #: Attention: Aaron Phillips	Work Order No.: 1407072 Reported: 07/17/2014 Received: 07/07/2014 12:35
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Lab Sample ID: 1407072-03 Client Sample ID: Anaconda 1445-13C	Collected By: Date Collected: 7/3/2014 12:00:00PM
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Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>Metals</b>								
Cadmium	<0.50	0.50	mg/kg		SW846 6010B	7/8/14	7/9/14	SS
Lead	3.8	2.5	mg/kg		SW846 6010B	7/8/14	7/9/14	SS
Mercury	<0.050	0.050	mg/kg		SW846 7471A	7/9/14	7/9/14	SS

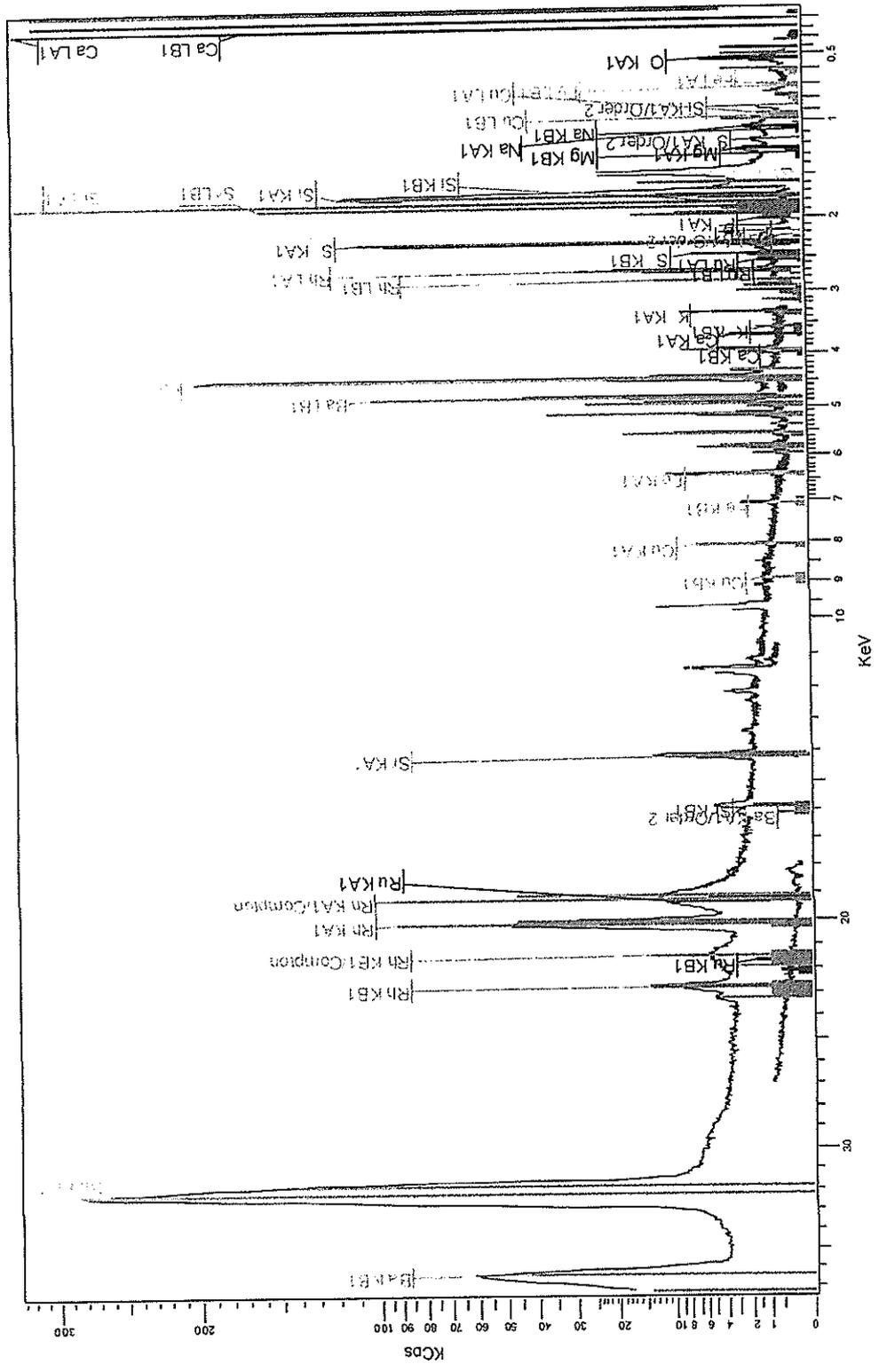
NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTL: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic  
 Sampling Procedure MCL: Maximum Contaminant Level \*: See Case Narrative  
 All results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Note: Samples analyzed for regulatory purposes should be put on ice immediately after sampling and received by the laboratory at temperatures between 0-6°C.  
 Microbiological analysis requires samples to be at least 4-10°C when received at the laboratory. For additional information regarding the limitations of the method(s) referred to, please call us at 661-395-0539.



Sample ID: Zalco1407072-03  
Sample Medium: Pressed Powder

Qualitative scan identified the follow elements; Ba, Cu, Fe, Ca, K, Na, Mg, Sr, Al, Si, P, S, O



Sample ID: Zalco1407072-03

Standardless Calibration Quantitative Results

Formula	Z	Concentration	Status	Line I	Net int.	Calc. concentration	Stat. error	LLD
Ba	56	59.6	XRF 2	Ba KAl-HS-Min	270.4	66.42	0.20%	0.12%
Na	11	0.796	XRF 1	Na KAl-HS-Min	1.173	0.796	4.13%	723.3 PPM
Mg	12	0.314	XRF 1	Mg KAl-HS-Min	1.246	0.314	4.35%	327.6 PPM
Al	13	4.97	XRF 1	Al KAl-HS-Min	9.956	4.97	1.05%	212.5 PPM
Si	14	10.62	XRF 1	Si KAl-HS-Min	37.19	10.62	0.54%	146.0 PPM
P	15	0.06	XRF 1	P KAl-HS-Min	0.3537	0.06	7.46%	131.1 PPM
S	16	11.5	XRF 1	S KAl-HS-Min	99.4	11.5	0.33%	137.7 PPM
K	19	0.585	XRF 1	K KAl-HS-Min	6.802	0.585	1.30%	77.0 PPM
Ca	20	0.18	XRF 1	Ca KAl-HS-Min	1.966	0.18	6.63%	85.8 PPM
Fe	26	2.25	XRF 1	Fe KAl-HS-Min	9.598	2.25	1.09%	164.3 PPM
Cu	29	0.029	XRF 1	Cu KAl-HS-Min	0.6874	0.029	6.55%	68.8 PPM
Sr	38	0.303	XRF 1	Sr KAl-HS-Min	10.9	0.303	1.13%	55.7 PPM
O	8		Added	O KAl	5.199	80	1.48%	1.75%
Au	79	0.5	Sample Mask	Au LAI-HS-Min	10.79	0.5	1.08%	111.9 PPM
Rh Rayleigh	45		Rayleigh peak	Rh KAl-HS-Min/NoFil	44.75	0.463	0.53%	
Rh Compton	45		Compton peak	Rh KAl-HS/Comp	11.8	0.608	1.63%	



ZALCO LABORATORIES, INC.  
4309 Armour Avenue, Bakersfield, CA 93308 (661) 395-0539 FAX (661) 395-3069 www.zalcolabs.com

CHAIN OF CUSTODY, ID#

1401012  
**RUSHA!**

Page 1 of 1  
Zalco Lab # 1401012

Client PO #

REPORT INFO

Client: Geo Drilling Hub  
Address: 13100 N. Ave  
City, State, Zip: Brea, CA 92603  
Attention: Aaron Phillips  
Phone: 714-908-0400  
Results  Fax:

INVOICE INFO

Invoice To: Same as Client   
Address:  
City, State, Zip:  
Attention:  
Phone:  
Results  Fax:

Email: a.phillips@geodrilling.com  
EMPLOYED BY:

ANALYSIS

# OF CONTAINERS	TEMPERATURE (C)
1	21.5
2	
3	

PROJECT ID:

QUOTE ID:

COMMENTS:

Turnaround Time:  
Routine working days   
Rush working days   
Send Copy to State of CA? Yes  No

Attention To:

Send Copy to County? Yes  No

County:

Pluse see attached - FB  
7/14/14 Date & time per Aaron MS

SAMPLED BY:

EMPLOYED BY:

Sample No. Sample Description Date Time Type\*

1 Anacanda 1445-136 7/3 12:00  
2 Bore Bend 2010 7/3 12:00  
3 China 1445-14A 7/3 12:00

RELINQUISHED By: Signature

VIA URS

PRINT

COMPANY

Date Time

RECEIVED By: Signature

PRINT

Aaron Phillips Geo Drill. 7/14/2014  
William E Johnson

NOTE: Samples are discarded 30 days after results unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client's expense.

\*Sample Type Key: AQ-Aqueous; BS-Biosolid; DW-Drinking Water; GW-Ground Water; G-Gas; LPG-Liquid Petroleum Gas; OL-Oil; O-Other; P-Petroleum; S-Soil/Solid; ST-Storm Water; WW-Wastewater  
\*Sample No.: FOR OFFICE USE ONLY

